

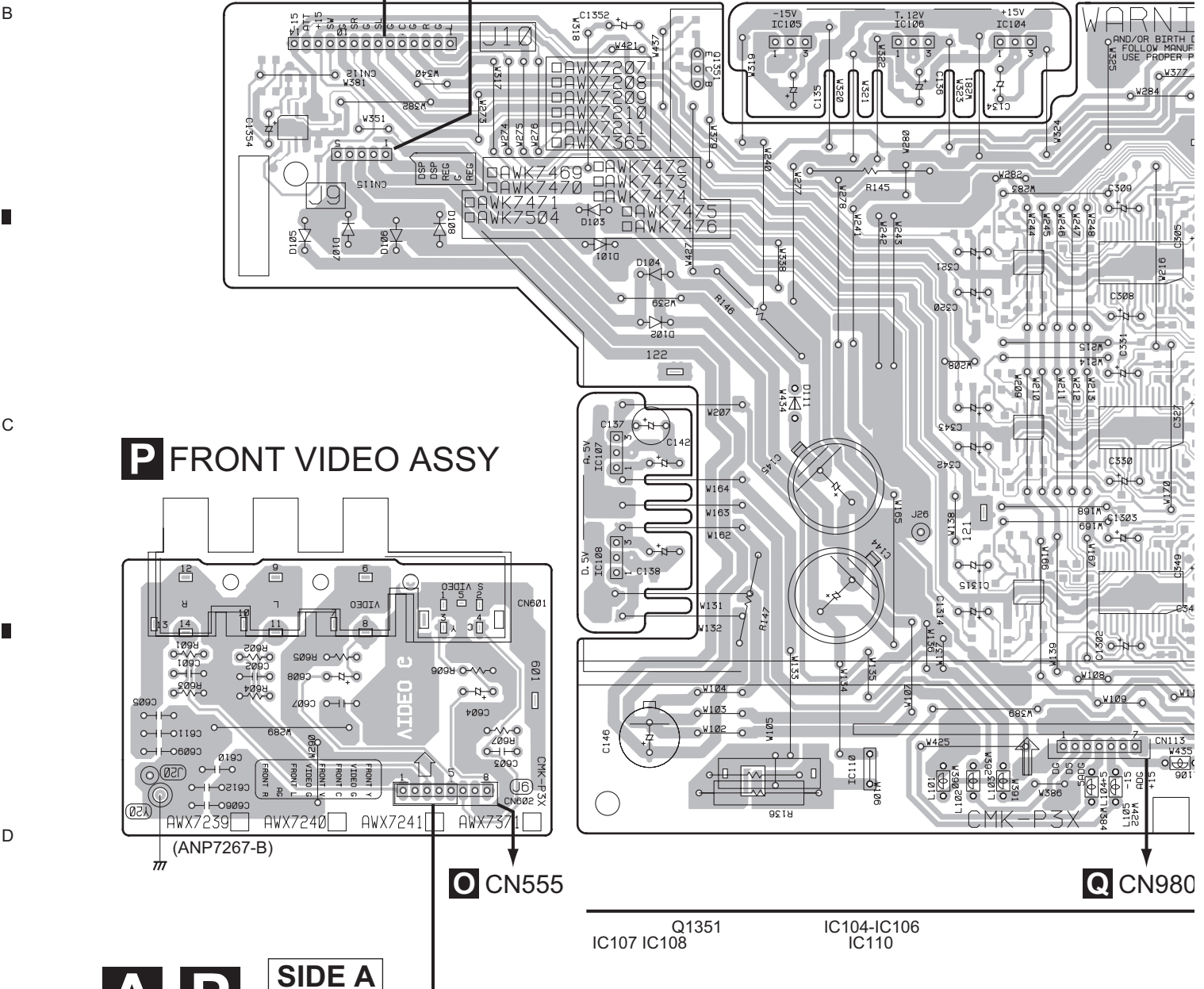
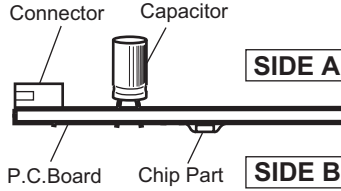
4. PCB CONNECTION DIAGRAM

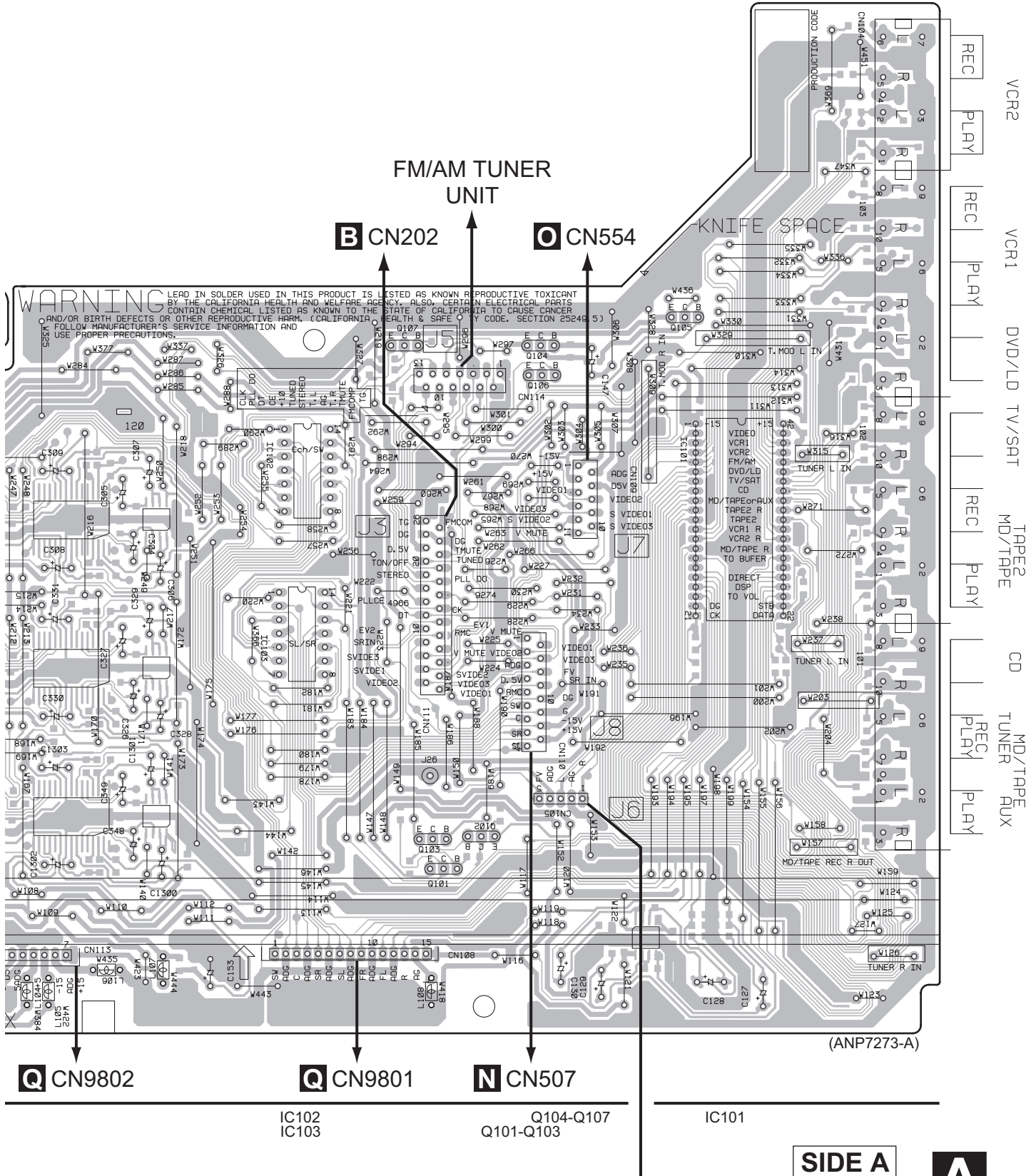
4.1 INPUT and FRONT VIDEO ASSEMBLIES

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.
3. The parts mounted on this PCB include all necessary parts for several destinations.
4. View point of PCB diagrams.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator





SIDE A

A

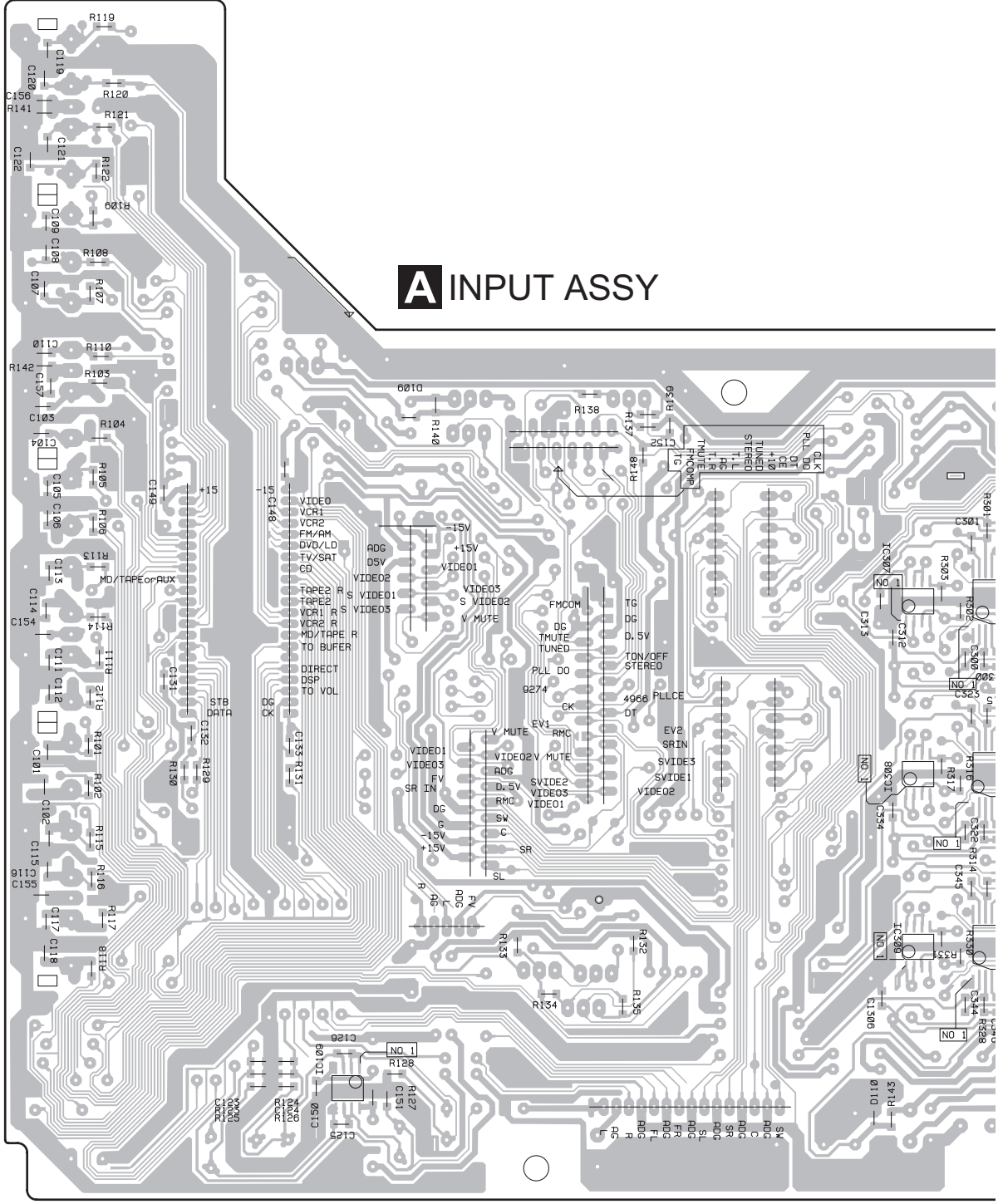
A

B

C

D

A INPUT ASSY



IC109

IC307-IC309

SIDE B

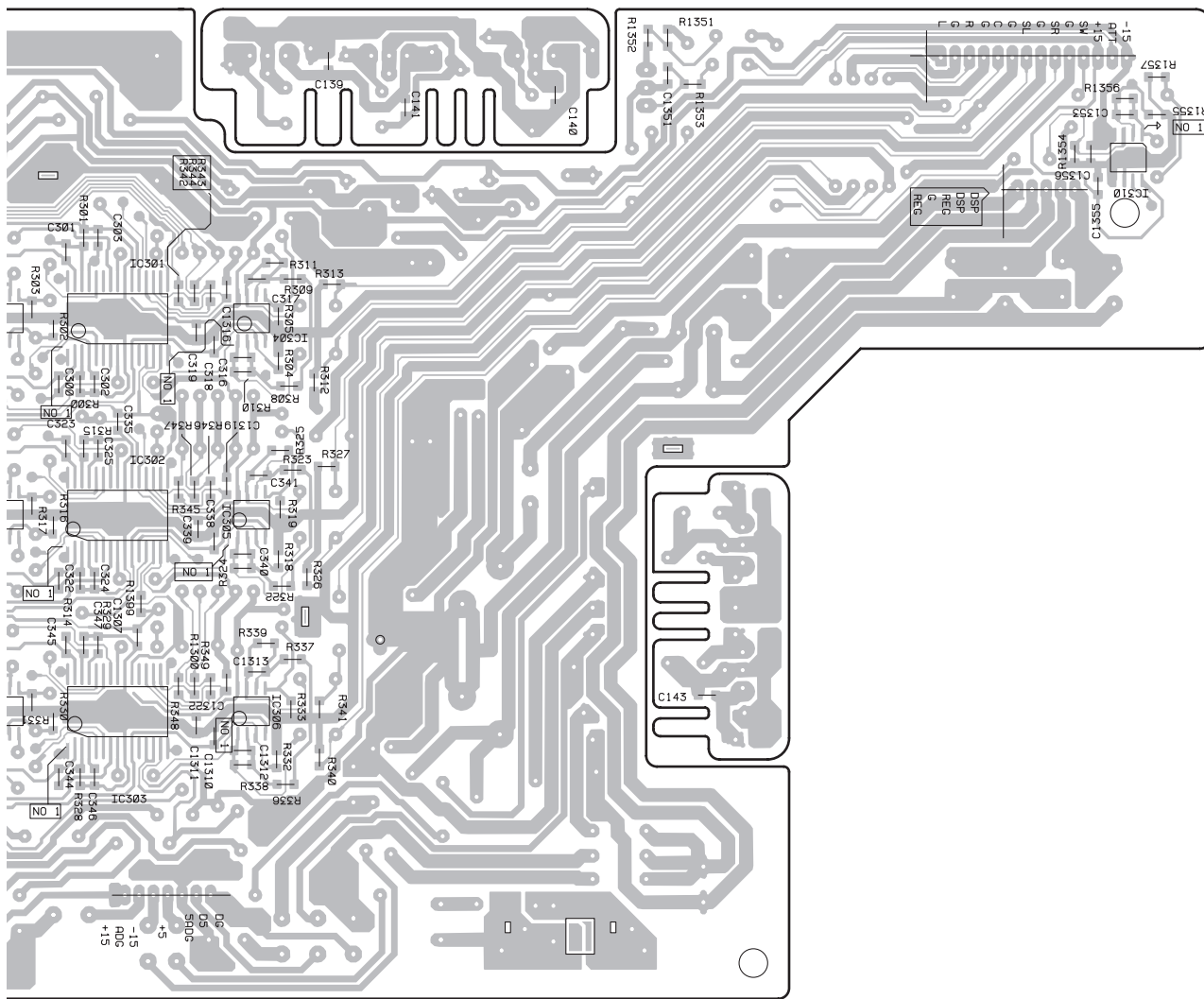


A

B

C

D



(ANP7273-A)

IC309-IC303 IC304-IC306

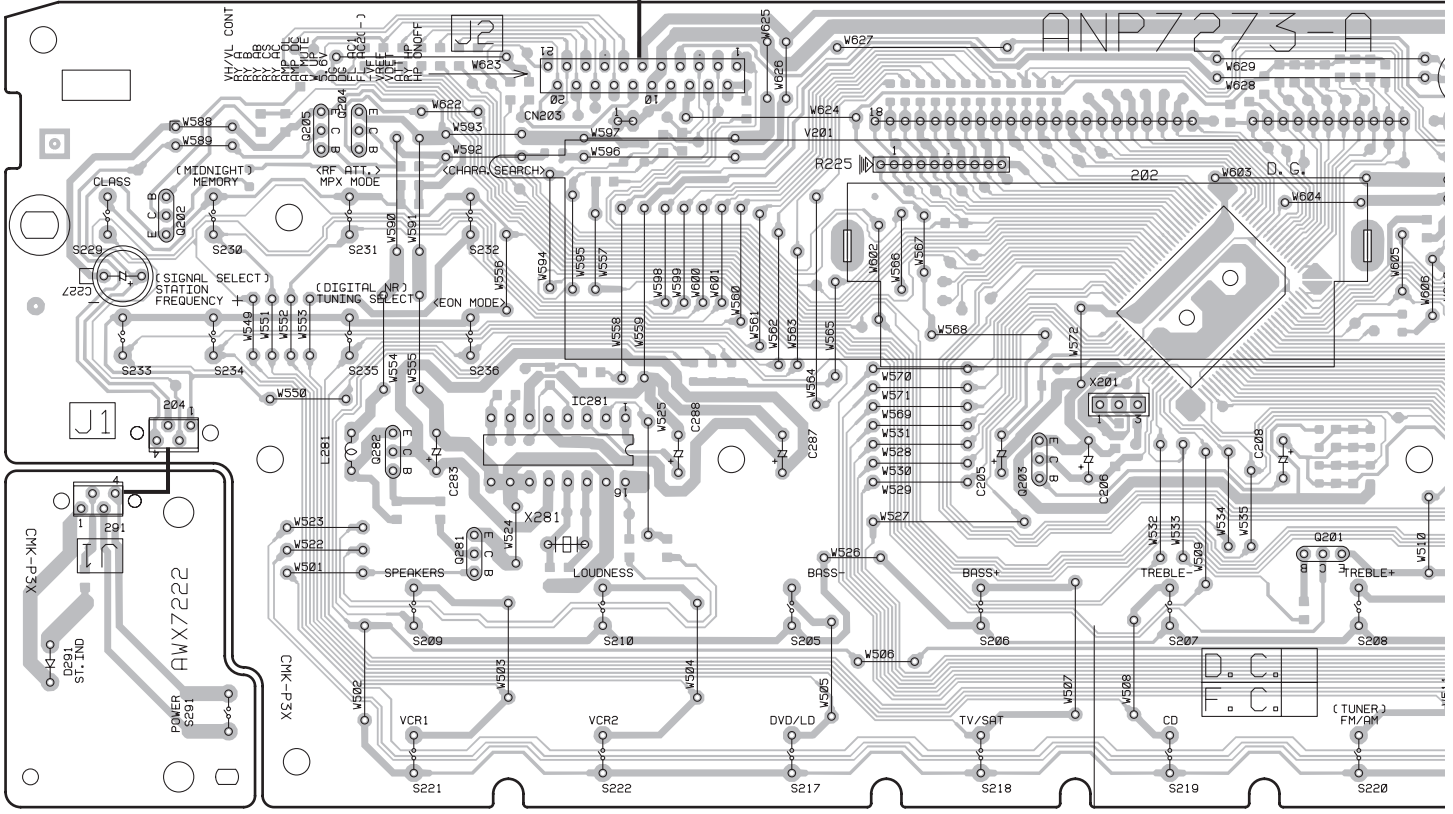
IC310

SIDE B

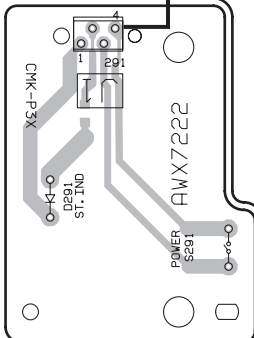
4.2 FRONT and POWER SW ASSEMBLIES

D CN401

A



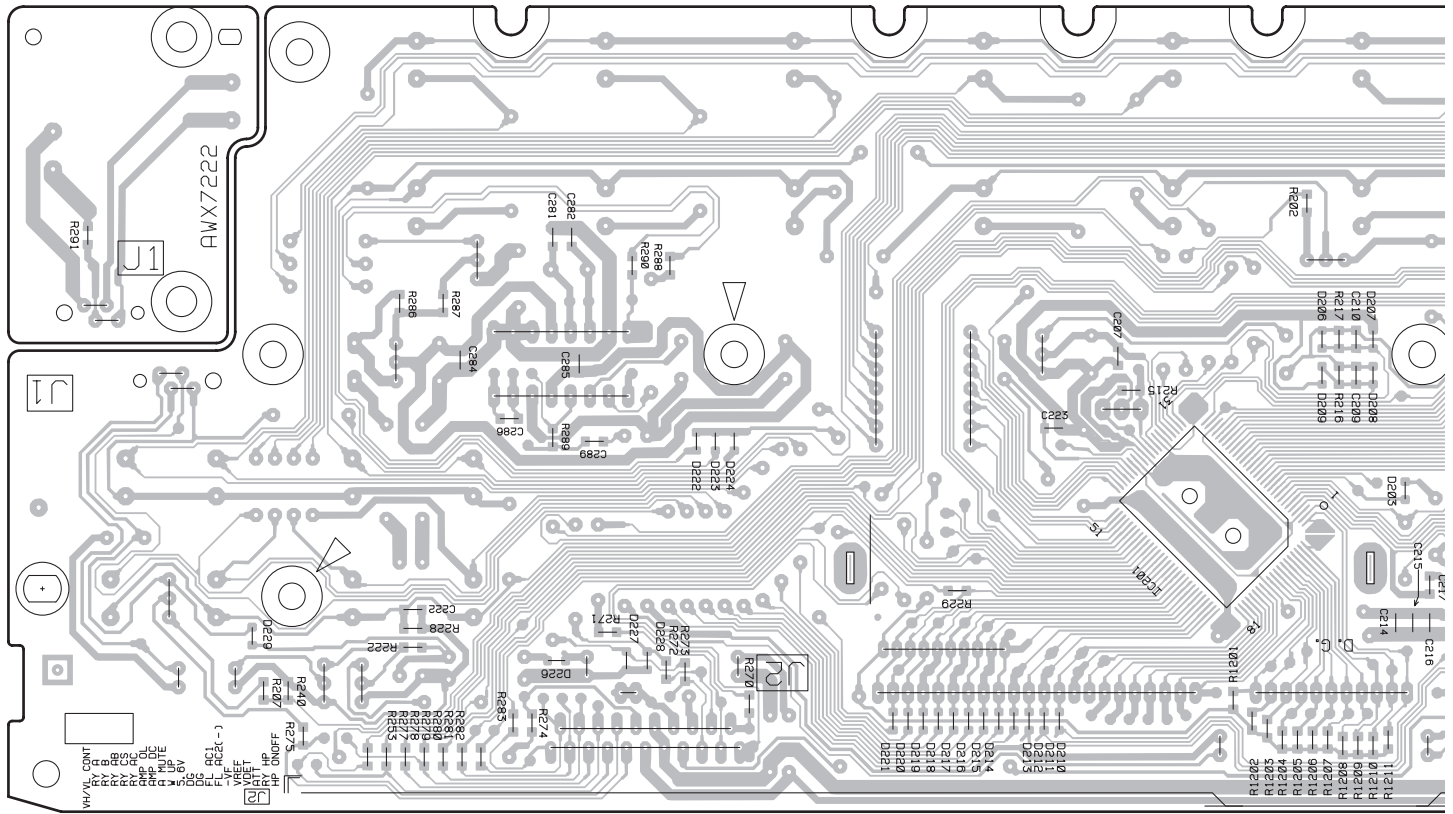
B



C POWER SW ASSY

Q202 Q205 Q204 Q282 Q281 IC281 Q203 Q201

C



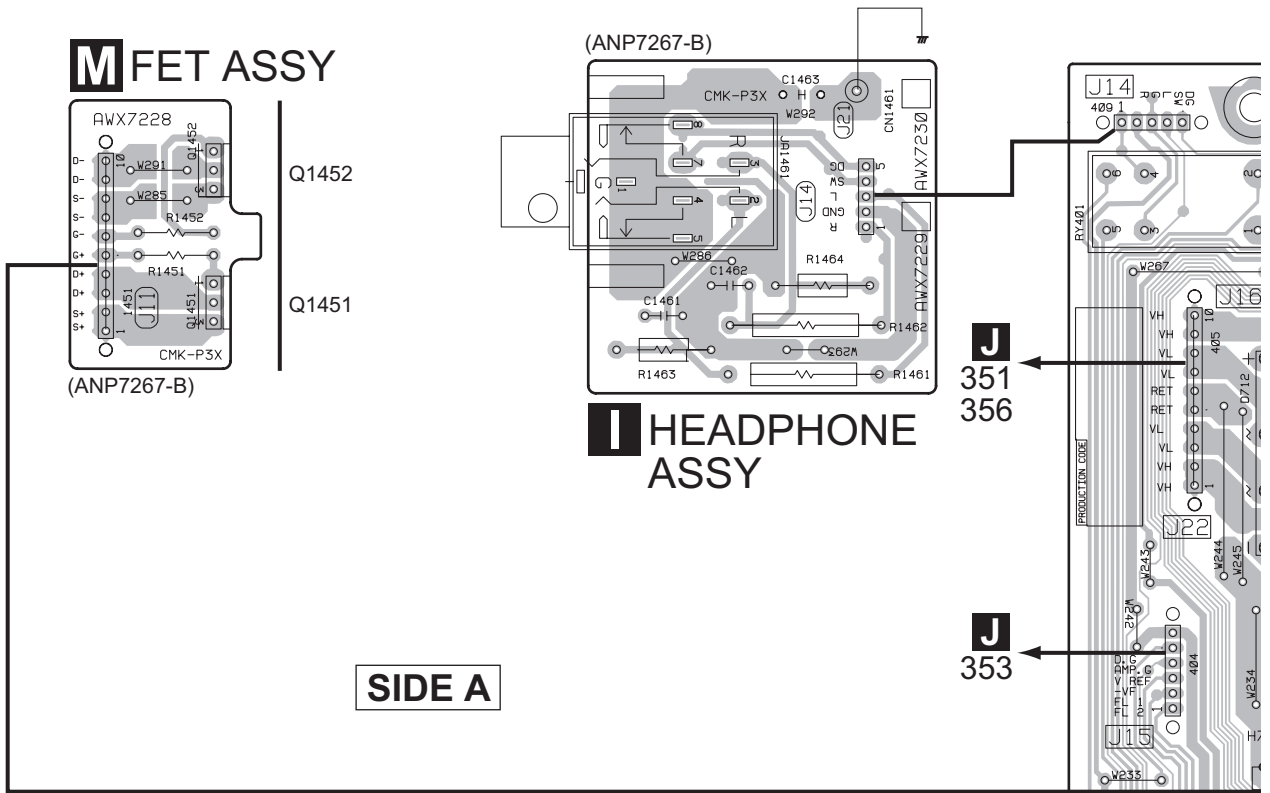
D

B C

IC201

4.3 AMP, HEADPHONE and FET ASSEMBLIES

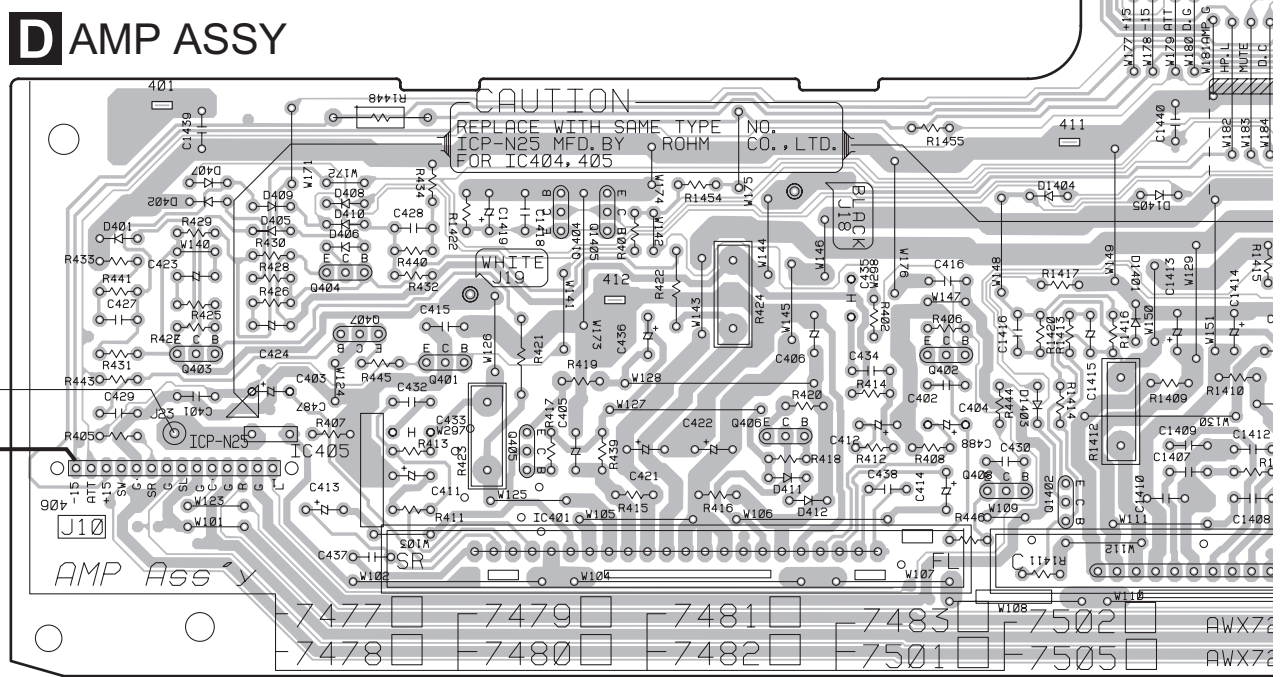
A



B

SIDE A

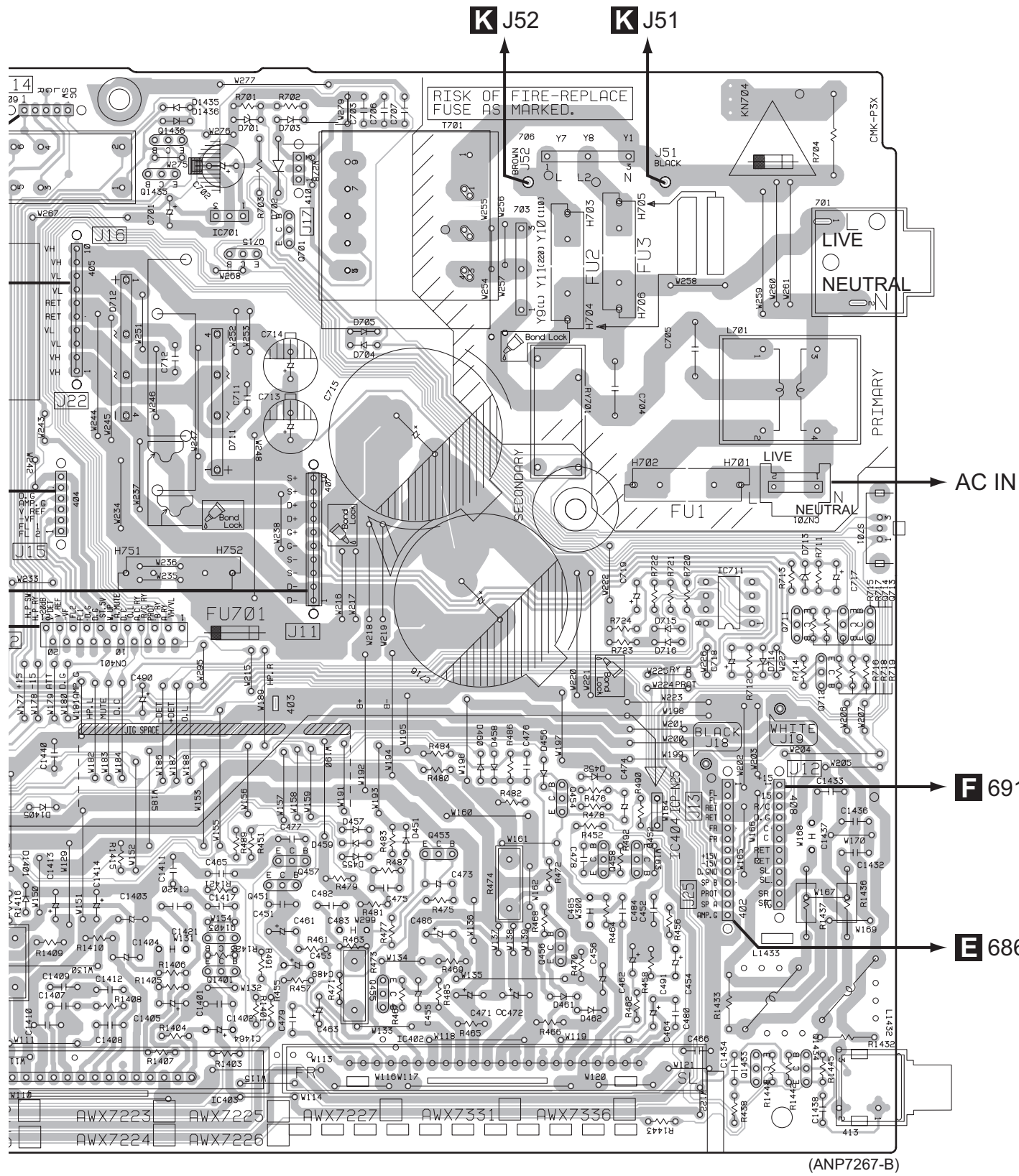
C



D

- Q403
- IC405
- Q404
- Q407
- Q401
- Q405
- Q1404
- Q1405
- IC401
- Q406
- Q402
- Q408
- Q1402
- IC404



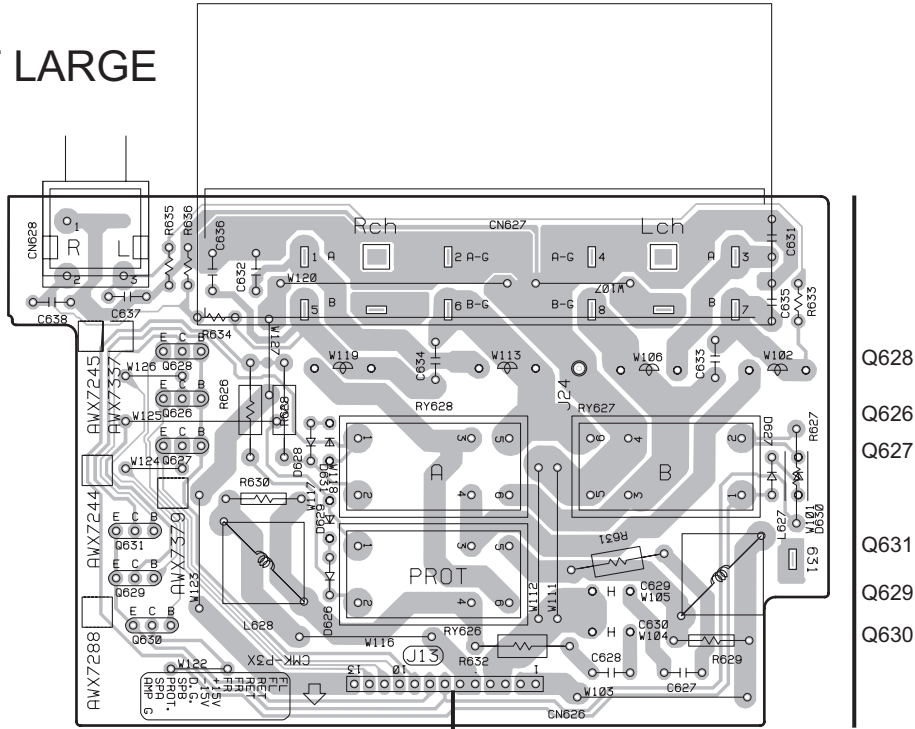


Q1436	Q1435	IC701	Q701	Q715	Q453	Q454	Q456	Q458	IC711	Q711-Q714
IC403	Q1403	Q1401	Q451	Q457	IC402	Q452	Q452	Q452	Q1433	Q1434
			Q455							

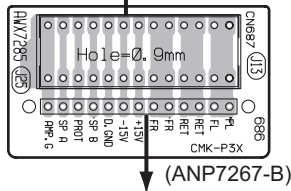


4.4 F.SP.CONNECT, R.C.SP.CONNECT, FRONT LARGE and REAR SP ASSEMBLIES

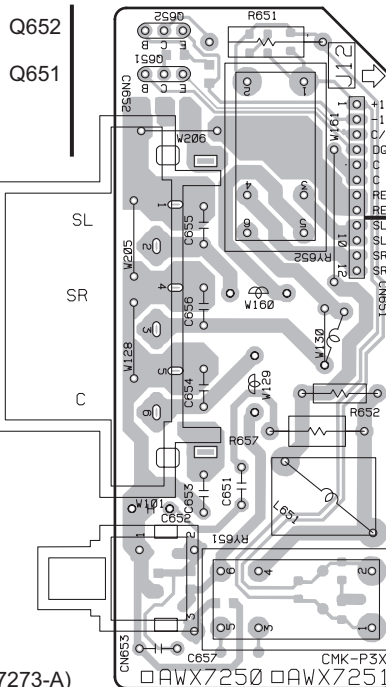
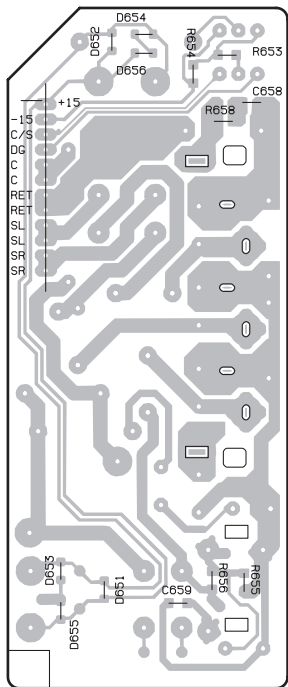
G FRONT LARGE ASSY



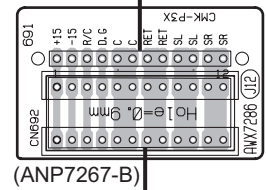
E F.SP. CONNECT ASSY



D 402



D 408



F R.C.SP. CONNECT ASSY

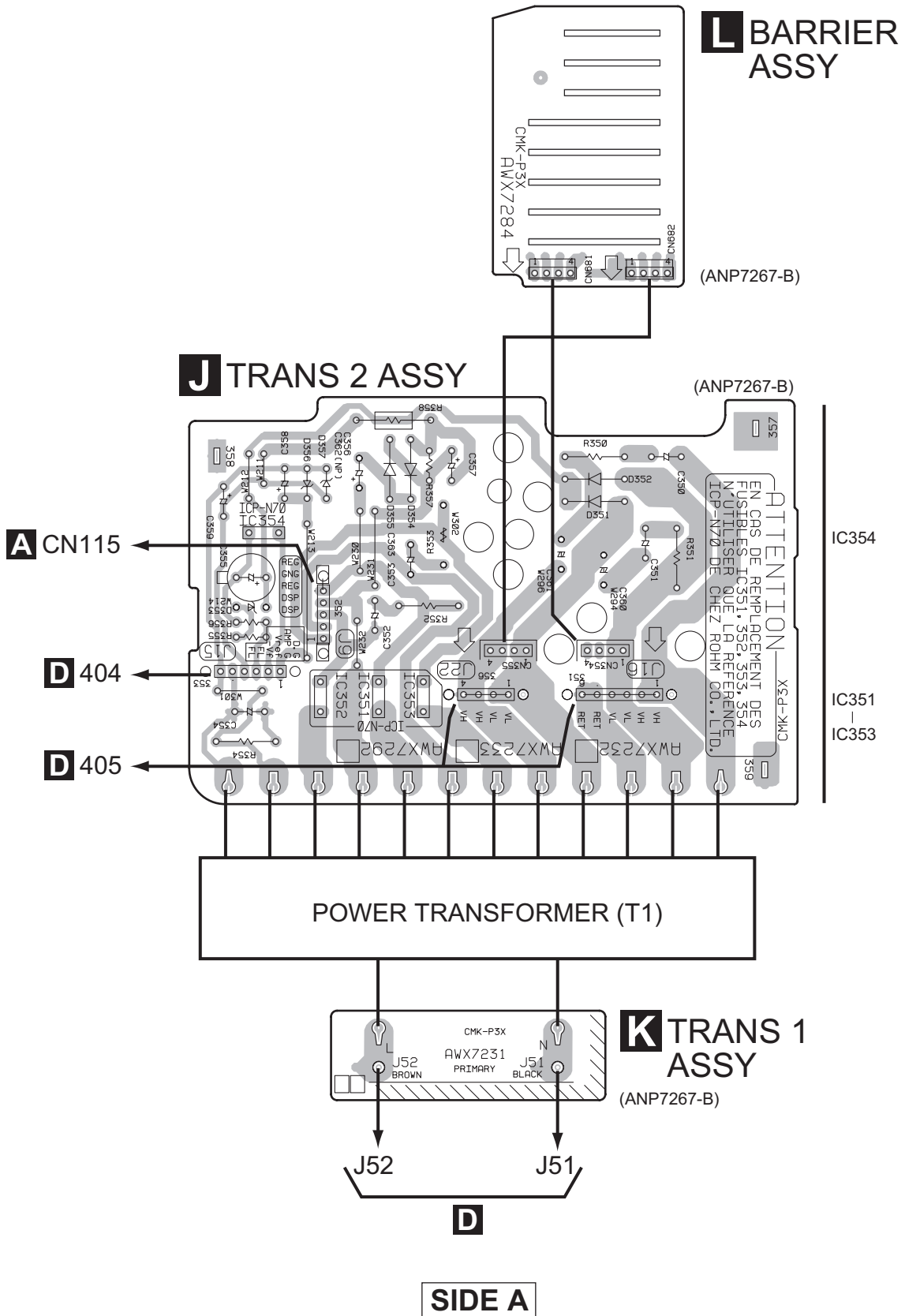
H REAR SP ASSY

H REAR SP ASSY

SIDE B

SIDE A

4.5 TRANS 2, TRANS 1 and BARRIER ASSEMBLIES



4.6 DOLBY DIGITAL ASSY

A

B

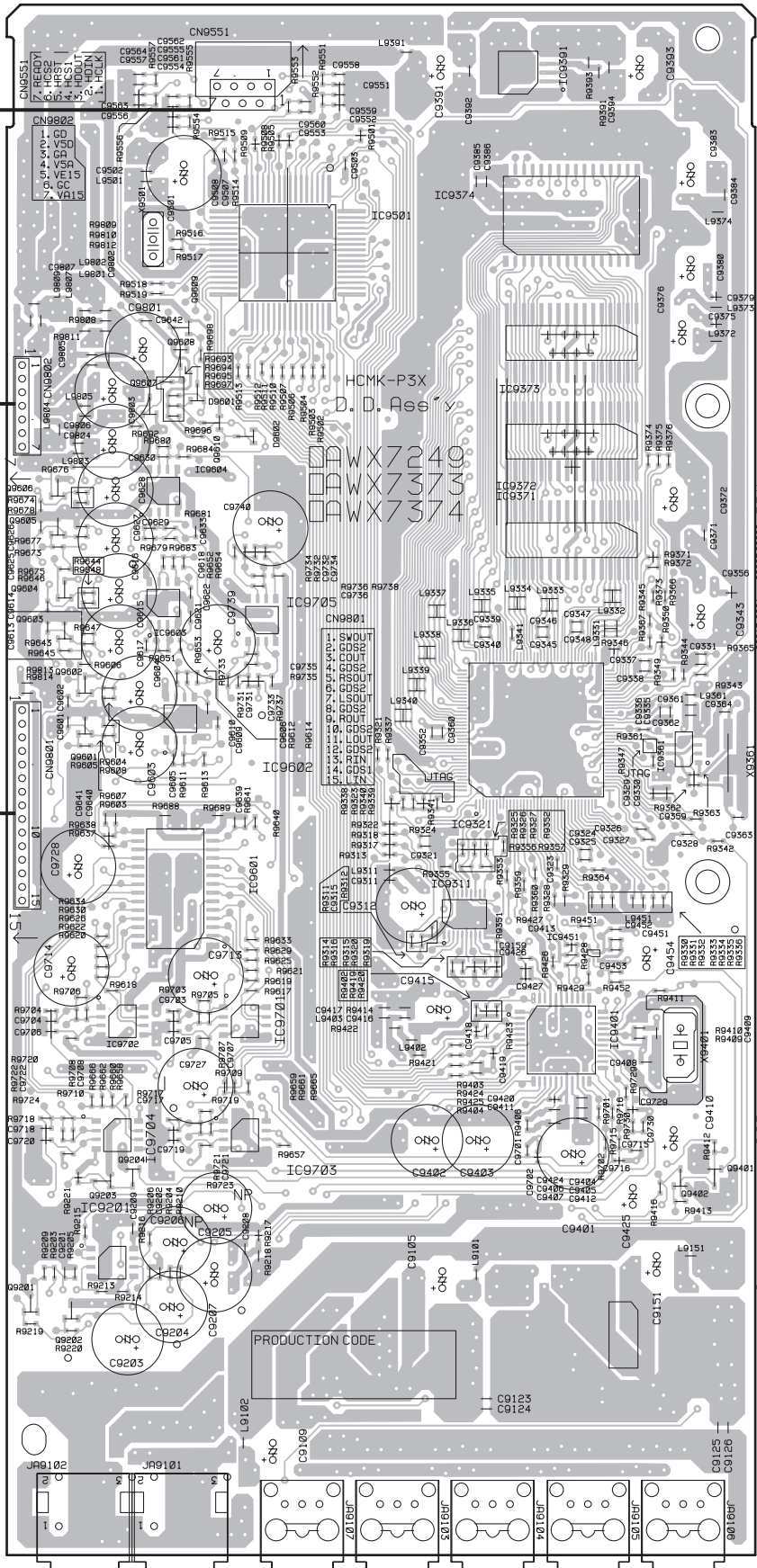
C

D

B
CN201

A
CN113

A
CN108



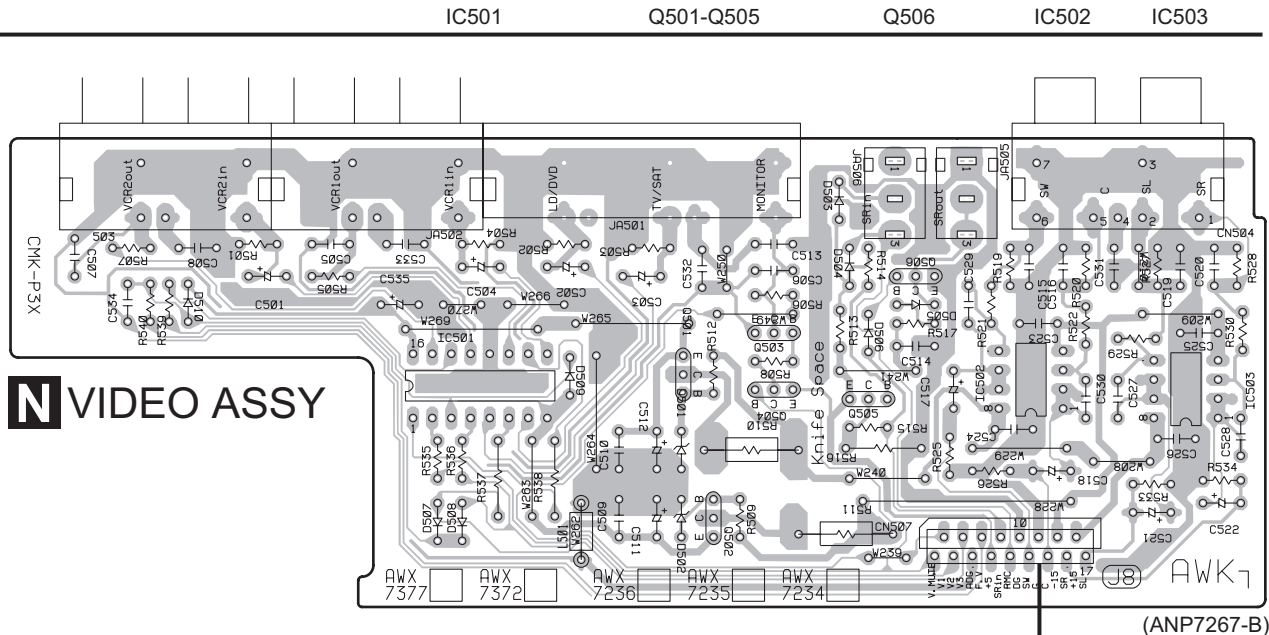
- IC9391
- IC9374
- IC9501
- Q9609
- Q9608
- IC9373
- Q9607
- Q9610
- IC9372
- Q9606
- IC9604
- Q9605
- IC9371
- Q9604
- IC9603
- IC9705
- Q9603
- Q9602
- Q9601
- IC9602
- IC9361
- IC9321
- IC9601
- IC9311
- IC9451
- IC9702
- IC9701
- IC9401
- IC9704
- IC9703
- Q9203
- Q9204
- Q9401
- IC9201
- Q9402
- Q9201
- Q9202

(ANP7297-A)
Q SIDE A

Q DOLBY DIGITAL ASSY

4.7 VIDEO and SVIDEO ASSEMBLIES

A

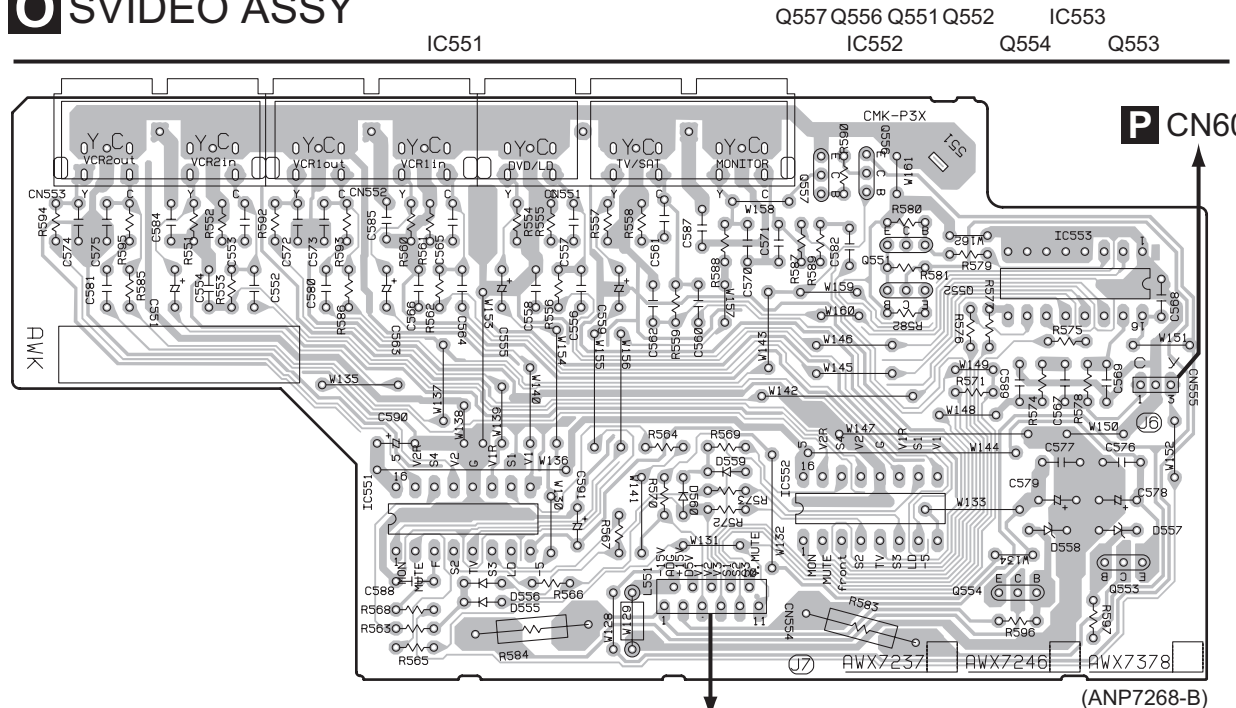


B

C

D

SVIDEO ASSY



SIDE A



5. PCB PARTS LIST

- NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 ●The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 ●When ordering resistors, first convert resistance values into code form as shown in the following examples.
 Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
- | | | | | | | | | | | |
|--------------|---------------|------------------|---------------|-----|-------|---------|---|---|---|---|
| 560 Ω | \rightarrow | 56×10^1 | \rightarrow | 561 | | RD1/4PU | 5 | 6 | 1 | J |
| 47k Ω | \rightarrow | 47×10^3 | \rightarrow | 473 | | RD1/4PU | 4 | 7 | 3 | J |
| 0.5 Ω | \rightarrow | R50 | | | | RN2H | R | 5 | 0 | K |
| 1 Ω | \rightarrow | 1R0 | | | | RSIP | 1 | R | 0 | K |
- Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
- | | | | | | | | | | | | |
|----------------|---------------|-------------------|---------------|------|-------|---------|---|---|---|---|---|
| 5.62k Ω | \rightarrow | 562×10^1 | \rightarrow | 5621 | | RN1/4PC | 5 | 6 | 2 | 1 | F |
|----------------|---------------|-------------------|---------------|------|-------|---------|---|---|---|---|---|

LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.		Remarks
		VSX-D608		
		KUXJI Type	KCXJI Type	
NSP	INPUT ASSY	AWK7472	AWK7472	
	├ INPUT ASSY	AWX7209	AWX7209	
	├ FRONT ASSY	AWX7215	AWX7215	
NSP	├ POWER SW ASSY	AWX7222	AWX7222	
NSP	├ REAR SP ASSY	AWX7250	AWX7250	
NSP	AMP ASSY	AWK7480	AWK7502	
	├ AMP ASSY	AWX7223	AWX7331	
NSP	├ FET ASSY	AWX7228	AWX7228	
NSP	├ HEADPHONE ASSY	AWX7229	AWX7229	
	├ TRANS 1 ASSY	AWX7231	AWX7231	
	├ TRANS 2 ASSY	AWX7232	AWX7232	
	├ VIDEO ASSY	AWX7235	AWX7235	
NSP	├ FRONT VIDEO ASSY	AWX7371	AWX7371	
	├ BARRIER ASSY	AWX7284	AWX7284	
NSP	├ F.SP.CONNECT ASSY	AWX7285	AWX7285	
NSP	├ R.C.SP.CONNECT ASSY	AWX7286	AWX7286	
NSP	EXCELLENT ASSY	AWK7485	AWK7485	
	├ SVIDEO ASSY	AWX7237	AWX7237	
	├ FRONT LARGE ASSY	AWX7288	AWX7288	
	DOLBY DIGITAL ASSY	AWX7373	AWX7373	

Mark	No.	Description	Part No.
A		INPUT ASSY	
		SEMICONDUCTORS	
		IC102,IC103	LC4966
		IC301-IC303	LC7536M
Δ		IC107,IC108	NJM7805FA
Δ		IC106	NJM78M12FA
Δ		IC104	NJM78M15FA
Δ		IC105	NJM79M15FA
		IC101	TC9274N-001
		IC109,IC304-IC310	UPC4570G2
		Q101,Q104	2SC1740S
		Q1351	2SC2878
		Q105	KRA101M
		Q103	KRA103M
		Q102,Q106	KRC103M
		D109	1SS355
		D101-D108	S5566G(TPB2)
		D110	UDZS5.1B

Mark	No.	Description	Part No.
		CAPACITORS	
		C131-C133	CCSQCH101J50
		C300,C301,C322,C323	CCSQCH102J50
		C344,C345	CCSQCH102J50
		C316,C340,C341	CCSQCH121J50
		C1316,C1319,C1322	CCSQCH561J50
		C1312,C1313	CCSQCH680J50
		C1300,C1301,C153,C306,C307	CEAT100M50
		C328,C329	CEAT100M50
		C137,C138	CEAT101M10
		C147	CEAT101M16
		C134-C136	CEAT101M25
		C1302,C1303,C304,C305	CEAT1R0M50
		C308,C309,C326,C327	CEAT1R0M50
		C330,C331,C348,C349	CEAT1R0M50
		C145	CEAT222M35
		C127,C128	CEAT2R2M50
		C146	CEAT332M16
		C144	CEAT332M35
		C1314,C1315,C320,C321	CEAT470M25
		C342,C343	CEAT470M25

VSX-D608

Mark	No.	Description	Part No.
	C142		CEAT470M35
	C129,C130,C1352,C1354		CEAT4R7M50
	C1351		CKSQYB102K50
	C1306,C1307,C1310,C1311		CKSQYB103K50
	C1355,C1356,C139-C141,C143		CKSQYB103K50
	C148-C151,C154,C156,C157		CKSQYB103K50
	C312,C313,C318,C319		CKSQYB103K50
	C334,C335,C338,C339		CKSQYB103K50
	C155		CKSQYB104K16
	C1353		CKSQYB222K50
	C302,C303,C324,C325		CKSQYB683K25
	C346,C347		CKSQYB683K25

RESISTORS

All Resistors

RS1/10S□□□□

OTHERS

CN109	11P FFC CONNECTOR	52045-1145
CN114	13P FFC CONNECTOR	52045-1345
CN110	17P FFC CONNECTOR	52045-1745
CN111	26P FFC CONNECTOR	52045-2645
CN115	5P JUMPER CONNECTOR	52147-0510
CN112	14P JUMPER CONNECTOR	52147-1410
CN104	6P PIN JACK	AKB7015
JA101-JA103	6P PIN JACK	AKB7113
CN105	KR CONNECTOR	B5B-PH-K-S
CN108	15P PLUG	KM200TA15
CN113	7P PLUG	KM200TA7
120-122	PCB BINDER	VEF1040

B FRONT ASSY

SEMICONDUCTORS

IC201	PDG232A
Q201,Q202	2SA933S
Q206,Q207	2SC1740S
Q203-Q205	KRC101M
D201-D203,D205-D221	1SS355
D225,D226,D229	1SS355
D227,D228	UDZS5.1B

COIL

L201	LFA2R2J
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SWITCHES

S201-S203,S205-S214	ASG1034
S217-S224,S229-S231	ASG1034
S233-S235	ASG1034
S250	ASX7004

CAPACITORS

C204 (0.047F/5.5V)	ACH7017
C220-C222	CCSQCH101J50
C217	CCSQCH102J50
C206,C208	CEAT2R2M50
C212	CEAT470M25
C205	CEAT470M50
C202	CEAT471M6R3
C227	CEJA221M6R3
C201,C203,C211	CKSQYB103K50
C214	CKSQYB104K25
C209,C210	CKSQYB473K50
C207	CKSQYF104Z25

Mark	No.	Description	Part No.
RESISTORS			
	R230		RA8T103J
	R225		RA9T104J
	Other Resistors		RS1/10S□□□□

OTHERS

X201	CERAMIC RESONATOR (7.7MHz)	ASS1055
204	4P CABLE HOLDER	51063-0405
CN201	15P FFC CONNECTOR	52044-0745
CN203	21P FFC CONNECTOR	52045-2145
CN202	26P FFC CONNECTOR	52045-2645
V201	FL TUBE	AAV7062
201	REMOTE RECEIVER UNIT	GP1U27X

C POWER SW ASSY

SEMICONDUCTOR

D291	BR3371XJ30A
------	-------------

SWITCH

S291	ASG1034
------	---------

RESISTORS

All Resistors

RS1/10S□□□□

OTHERS

291	4P CABLE HOLDER	51063-0405
-----	-----------------	------------

D AMP ASSY

(1) CONTRAST TABLE

AWX7223 and AWX7331 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWX7223	AWX7331	
	H751, H752 FUSE CLIP	Not used	AKR1004	

(2) PARTS LIST FOR AWX7223

SEMICONDUCTORS

△	IC404,IC405	ICP-N25
	IC711	NJM4558D-D
△	IC701	NJM78M56FA
△	IC401,IC402	PAC007A
△	IC403	PAC008A
	Q712	2SA992
	Q1404,Q1405	2SC1740S
	Q711	2SC1845
	Q1402,Q403,Q404,Q453,Q454	2SC2240
	Q405,Q406,Q455,Q456	2SC2705
	Q1401,Q1403,Q1434,Q401,Q402	2SC2878
	Q407,Q408,Q451,Q452	2SC2878
	Q457,Q458	2SC2878
	Q1436,Q714	KRA103M
	Q1435,Q701	KRC101M
	Q713,Q715	KRC103M
	D1401,D1403-D1405,D1435	1SS133
	D401,D402,D405-D412	1SS133
	D451,D452,D455-D462	1SS133
	D703,D704,D715,D716	1SS133

Mark	No.	Description	Part No.
△	D711,D712 D713,D714 D701 D702		D5SBA20 MTZJ18B MTZJ5.1A S5688G

COILS

△	L701	LINE FILTER	ATF7018
	L1432,L1433	AF CHOKE COIL	ATH1004

SWITCH AND RELAYS

	S701		ASH7002
△	RY401		ASR7001
△	RY701		ASR7016

CAPACITORS

△	C711,C712 (0.01μF/AC250V)		ACG1005
△	C704,C705 (10000pF/AC250V)		ACG7020
	C715,C716 (8200μF/71V)		ACH7018
	C1408,C1410		CCCSL101K2H
	C1420		CCCSL180J50
	C1411,C415,C416,C465,C466 C437,C438,C479,C480 C1403,C1404,C405,C406 C455,C456 C1415,C423,C424,C473,C474		CCCSL221J50 CCCSL470J50 CEANP2R2M2A CEANP2R2M2A CEANP2R2M50
	C436,C486 C412,C461,C462 C713,C714 C702 C414,C463,C464,C490		CEAT101M10 CEAT101M25 CEAT101M2A CEAT102M25 CEAT1R0M50
	C717,C718 C1419 C701 C1413,C1414,C421,C422 C471,C472		CEAT1R0M50 CEAT221M10 CEAT470M25 CEAT4R7M2A CEAT4R7M2A
	C403,C404,C453,C454,C719 C1405,C411 C413 C1402 C1416,C427,C428,C475,C476		CEAT4R7M50 CEHAQ101M25 CEHAQ1R0M50 CEHAQ4R7M50 CFTLA334J50
	C1432,C1433 C1440 C1417,C1418,C429,C430 C477,C478 C1401,C401,C402,C451,C452		CFTYA104J50 CGCYX104M25 CKCYB102K50 CKCYB102K50 CKCYB331K50
	C1412 C1407,C1409 C703,C706,C707		CKCYB471K2H CKCYB471K50 CKCYF103Z50

RESISTORS

△	R1412,R423,R424,R473,R474 (0.22Ω, 5W)		ACN7094
△	R704 (2.2MΩ, 1/2W)		RCN1080
△	R703		RD1/2PM270J
△	R1409,R1410,R415,R416		RD1/4MUF331J
△	R465,R466		RD1/4MUF331J
△	R419,R420,R469,R470		RD1/4MUF820J
△	R1432,R1433		RD1/4PMF4R7J
△	R1436,R1437		RS1LMF4R7J
△	R1448		RS1LMF561J
	Other Resistors		RD1/4PU□□□J

Mark	No.	Description	Part No.
OTHERS			
	409	5P CABLE HOLDER	51048-0500
	404	6P CABLE HOLDER	51048-0600
	408	12P CABLE HOLDER	51048-1200
	402	13P CABLE HOLDER	51048-1300
	405,407	10P CABLE HOLDER	51052-1000
	CN401	21P FFC CONNECTOR	52045-2145
	JA413	1P PIN JACK	AKB7111
△	701	AC OUTLET 1P	AKP1060
	H701-H704	FUSE CLIP	AKR1004
	1,2	HEAT SINK B	ANH1021
△	T701	POWER TRANSFORMER	ATT1223
	J14	JUMPER WIRE 5P	D20PYY0520E
	J10	JUMPER WIRE 14P	D20PYY1415E
	J18	BOARD IN WIRE	DB020ND0
	J19	BOARD IN WIRE	DB925ND0
	CN701	AC CORD SOCKET	RKP1751
	401,403,411,412	PCB BINDER	VEF1040
	KN704	EARTH METAL FITTING	VNF1084

E F.SP. CONNECT ASSY**OTHERS**

686	13P CABLE HOLDER	51048-1300
-----	------------------	------------

F R.C.SP. CONNECT ASSY**OTHERS**

691	12P CABLE HOLDER	51048-1200
-----	------------------	------------

G FRONT LARGE ASSY**SEMICONDUCTORS**

Q626-Q628		KRA103M
Q629-Q631		KRC101M
D626-D628		1SS133

COILS

L627,L628	AF CHOKE COIL	ATH1004
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RELAYS

△	RY626-RY628	ASR7001
---	-------------	---------

CAPACITORS

C627,C628		CFTYA104J50
-----------	--	-------------

RESISTORS

△	R629,R630	RD1/4LMF4R7J
△	R631,R632	RS1LMF4R7J
△	R626-R628	RS1LMF561J

OTHERS

CN627	8P SPEAKER TERMINAL	AKE7036
CN626	13P PLUG	AKM7006

VSX-D608

Mark	No.	Description	Part No.
H		REAR SP ASSY	
		SEMICONDUCTORS	
	Q652		2SC1740S
	Q651		KRA101M
	D651,D652		1SS355
		COIL	
	L651	AF CHOKE COIL	ATH1004
		RELAYS	
	△ RY651,RY652		ASR7001
		CAPACITOR	
	C651		CFTYA104J50
		RESISTORS	
	△ R652		RD1/4LMF4R7J
	△ R657		RS1LMF4R7J
	△ R651		RS2LMF271J
	Other Resistors		RS1/10S□□□□
		OTHERS	
	JA653	1P PIN JACK	AKB7111
	CN652	SPEAKER TERMINAL 6P	AKE7041
	CN651	12P PLUG	AKM7007
I		HEADPHONE ASSY	
		RESISTORS	
	△ R1461,R1462		RS3LMF331J
		OTHERS	
	JA1461	HEADPHONE JACK	RKB1014
J		TRANS 2 ASSY	
		SEMICONDUCTORS	
	△ IC351-IC354		ICP-N70
	D356		MTZJ20A
	D357		MTZJ9.1B
	D351,D352,D354,D355		S5688G
		CAPACITORS	
	C359		CEAT101M10
	C358		CEAT101M35
	C356		CEAT470M25
	C355,C357		CEAT470M50
		RESISTORS	
	△ R358		RS1LMF182J
	Other Resistors		RD1/4PU□□□□
		OTHERS	
	352	5P CABLE HOLDER	51048-0500
	353	6P CABLE HOLDER	51048-0600
	356	4P CABLE HOLDER	51052-0400
	351	6P CABLE HOLDER	51052-0600
	J9	JUMPER WIRE 5P	D20PYY0545E
	CN354,CN355	4P PLUG	KM200TA4
	357,358	PCB BINDER	VEF1040

Mark	No.	Description	Part No.
K		TRANS 1 ASSY	
		OTHERS	
	J51	LEAD WIRE UNIT	DB035NB0
	J52	LEAD WIRE UNIT	DB135NB0
L		BARRIER ASSY	
		OTHERS	
	CN681,CN682	4P SOCKET	KP200TA4L
M		FET ASSY	
		SEMICONDUCTORS	
	△ Q1452		IRF540A
	△ Q1451		IRF9540A
		RESISTORS	
	△ R1451,R1452		RD1/4PMF101J
	Other Resistors		RD1/4PM□□□□
		OTHERS	
	1451	10P CABLE HOLDER	51052-1000
N		VIDEO ASSY	
		SEMICONDUCTORS	
	IC501		NJM2296D
	IC502,IC503		NJM4558D-D
	Q502		2SA1515
	Q505		2SA933S
	Q501		2SC3377
	Q506		KRC103M
	D503,D505-D510		1SS133
	D501,D502		MTZJ6.2B
		CAPACITORS	
	C505-C507		CCCSL221J50
	C501-C504,C511,C512,C535		CEAT470M25
	C517,C518,C521,C522		CEAT4R7M50
	C509,C510		CGCYX473M25
	C508,C513,C514,C523-C526		CKCYF103Z50
	C531-C533		CKCYF103Z50
		RESISTORS	
	△ R510,R511		RS1LMF151J
	Other Resistors		RD1/4PU□□□□
		OTHERS	
	CN507	17P FFC CONNECTOR	52045-1745
	502,503	2P PIN JACK	AKB7017
	JA501	3P PIN JACK	AKB7056
	CN504	4P PIN JACK	AKB7087
	JA505,JA506	REMOTE CONTROL JACK	RKN1004

Mark	No.	Description	Part No.
------	-----	-------------	----------

O VIDEO ASSY

SEMICONDUCTORS

IC551,IC552	NJM2296D
IC553	TC4051BP
Q554	2SA1515
Q551	2SA933S
Q552	2SC1740S

Q553	2SC3377
D555,D556,D559,D560	1SS133
D557,D558	MTZJ6.2B

CAPACITORS

C570-C575	CCCSL221J50
C578,C579	CEAT470M10
C551,C555,C559,C563	CEAT470M25
C590,C591	CEAT470M25
C552,C556,C560,C564,C567	CGCYX104M16

C580-C582	CGCYX104M16
C553,C557,C561,C565	CGCYX473M16
C576,C577	CGCYX473M16
C584,C585,C587	CKCYF103Z50
C554,C558,C562,C566	CKPUYY103M16

C568,C569	CKPUYY103M16
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RESISTORS

△ R583,R584	RS2LMF101J
Other Resistors	RD1/4PU□□□□

OTHERS

CN554 11P FFC CONNECTOR	52044-1145
CN552,CN553	AKP7020
4P MINI DIN SOCKET	
CN551 4P MINI DIN SOCKET	AKP7043
CN555 KR CONNECTOR 3P	B3B-PH-K-S

P FRONT VIDEO ASSY

CAPACITORS

C604,C608	CEAT470M25
C605-C607	CGCYX104M25
C603	CGCYX473M25
C609,C610	CKCYB471K50
C611,C612	CKCYF103Z50

RESISTORS

All Resistors	RD1/4PU□□□□
---------------	-------------

OTHERS

CN601 FRONT PIN JACK	AKX7007
601 PCB BINDER	VEF1040

Mark	No.	Description	Part No.
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Q DOLBY DIGITAL ASSY

SEMICONDUCTORS

IC9401	CS4226-KQ
IC9371	KM68V1002AJ-15
IC9201	NJM2100M
IC9602-IC9604,IC9701-IC9705	NJM4558MD
IC9501	PD5501B

△ IC9374	PDK038A
IC9391	PQ20WZ51
IC9151	TC74ACT151AF
IC9101	TC74HCU04AF
IC9311	TC74VHCT244AFT

IC9451	TC7SH08FU
IC9361	TC7WU04F
IC9601	TC9164AF
IC9321	XCC56362PV100
Q9201,Q9202,Q9601-Q9606	2SC3326

Q9203,Q9402,Q9607,Q9609,Q9610	DTA124EK
Q9204,Q9401,Q9608	DTC124EK
D9601,D9602	1SS181

COILS AND FILTERS

L9391,L9501,L9807,L9809	ATL7002
CHIP FERRITE BEAD	
F9326,F9375,F9381	DTF1064
CHIP BEAD	

L9101,L9102,L9151,L9311,L9361	QTL1013
CHIP SOLID INDUCTOR	

L9402,L9403,L9451,L9801-L9805	QTL1013
CHIP SOLID INDUCTOR	

CAPACITORS

C9334,C9365	CCSQCH100D50
C9341,C9349,C9355,C9357,C9358	CCSQCH101J50
C9373	CCSQCH101J50
C9300,C9301,C9304-C9307,C9309	CCSQCH221J50
C9314,C9316,C9366,C9368	CCSQCH221J50

C9387,C9388,C9390,C9399,C9400	CCSQCH221J50
C9422,C9428,C9429	CCSQCH221J50
C9108,C9154,C9505	CCSQCH271J50
C9127	CCSQCH471J50
C9104	CCSQCH560J50

C9159,C9201,C9202,C9324,C9326	CCSRCH101J50
C9329,C9336,C9338,C9340,C9345	CCSRCH101J50
C9348,C9386	CCSRCH101J50
C9736	CCSRCH102J50
C9363,C9364	CCSRCH150J50

C9420,C9707,C9708,C9721,C9722	CCSRCH151J50
C9735	CCSRCH151J50
C9408,C9409	CCSRCH180J50
C9360,C9405,C9424,C9554	CCSRCH221J50
C9609,C9610,C9621,C9622	CCSRCH221J50

C9362,C9629	CCSRCH271J50
C9411,C9426,C9427,C9452,C9508	CCSRCH471J50
C9601,C9602,C9605,C9606	CCSRCH471J50
C9613,C9614,C9617,C9618,C9625	CCSRCH471J50
C9639	CCSRCH471J50

C9105,C9109,C9151,C9312,C9372	CEJA101M10
C9383,C9393,C9402,C9501,C9801	CEJA101M10
C9410	CEJA1R0M50
C9713,C9714,C9727,C9728	CEJA220M25
C9739,C9740,C9803,C9805	CEJA220M25

Mark	No.	Description	Part No.
	C9207, C9343		CEJA221M6R3
	C9203, C9204, C9391, C9401, C9415		CEJA4R7M50
	C9454, C9603, C9604, C9615, C9616		CEJA4R7M50
	C9627, C9628		CEJA4R7M50
	C9205, C9206		CEJANP100M10
	C9103		CKSQYB102K50
	C9101, C9107, C9153, C9313, C9322		CKSQYB103K50
	C9332, C9333, C9342, C9344		CKSQYB103K50
	C9350, C9351, C9353, C9354, C9367		CKSQYB103K50
	C9374, C9636, C9637		CKSQYB103K50
	C9158, C9504		CKSQYB104K16
	C9407		CKSQYB224K16
	C9330		CKSQYB474K16
	C9430		CKSQYF103Z50
	C9102, C9115-C9117, C9119, C9421		CKSQYF104Z25
	C9423, C9431, C9607, C9608		CKSQYF104Z25
	C9619, C9620, C9631, C9632		CKSQYF104Z25
	C9709-C9712, C9723-C9726		CKSQYF104Z25
	C9737, C9738		CKSQYF104Z25
	C9323, C9325, C9327, C9335, C9337		CKSRYB103K50
	C9339, C9346, C9347, C9352, C9361		CKSRYB103K50
	C9385, C9626, C9642		CKSRYB103K50
	C9705, C9706, C9719, C9720		CKSRYB104K16
	C9733, C9734		CKSRYB104K16
	C9633		CKSRYB122K50
	C9703, C9704, C9717, C9718, C9731		CKSRYB222K50
	C9406		CKSRYB223K50
	C9359		CKSRYB562K50
	C9701, C9702, C9715, C9716, C9729		CKSRYB682K50
	C9732		CKSRYB682K50
	C9123, C9125, C9451		CKSRYF103Z50
	C9208, C9209, C9404, C9807		CKSRYF104Z16

6. ADJUSTMENT

There is no information to be shown in this chapter.

RESISTORS

R9103, R9109, R9115, R9151, R9157	RS1/10S0R0J
R9377-R9380, R9382, R9386-R9388	RS1/10S0R0J
R9520, R9690	RS1/10S0R0J
R9108, R9121-R9123, R9125, R9126	RS1/10S101J
R9165-R9167	RS1/10S102J
R9107	RS1/10S222J
R9106, R9348, R9521, R9713, R9714	RS1/10S473J
R9727, R9728, R9741, R9742	RS1/10S473J
R9101	RS1/10S750J
Other Resistors	RS1/16S□□□J

OTHERS

X9501	CERAMIC RESONATOR (7.7MHz)	ASS1055
X9361	CRYSTAL RESONATOR (20.000MHz)	ASS7023
X9401	CRYSTAL RESONATOR (18.432MHz)	RSS1052
CN9551	7P FFC CONNECTOR	52044-0745
JA9103-JA9105	OPTICAL RECEIVE MODULE	GP1F32R
JA9107	OPTICAL SEND MODULE	GP1F32T
CN9801	15P SOCKET	KP200TA15L
CN9802	7P SOCKET	KP200TA7L
JA9101	1P PIN JACK (NI, BL)	VKB1077

7. GENERAL INFORMATION

7.1 PARTS

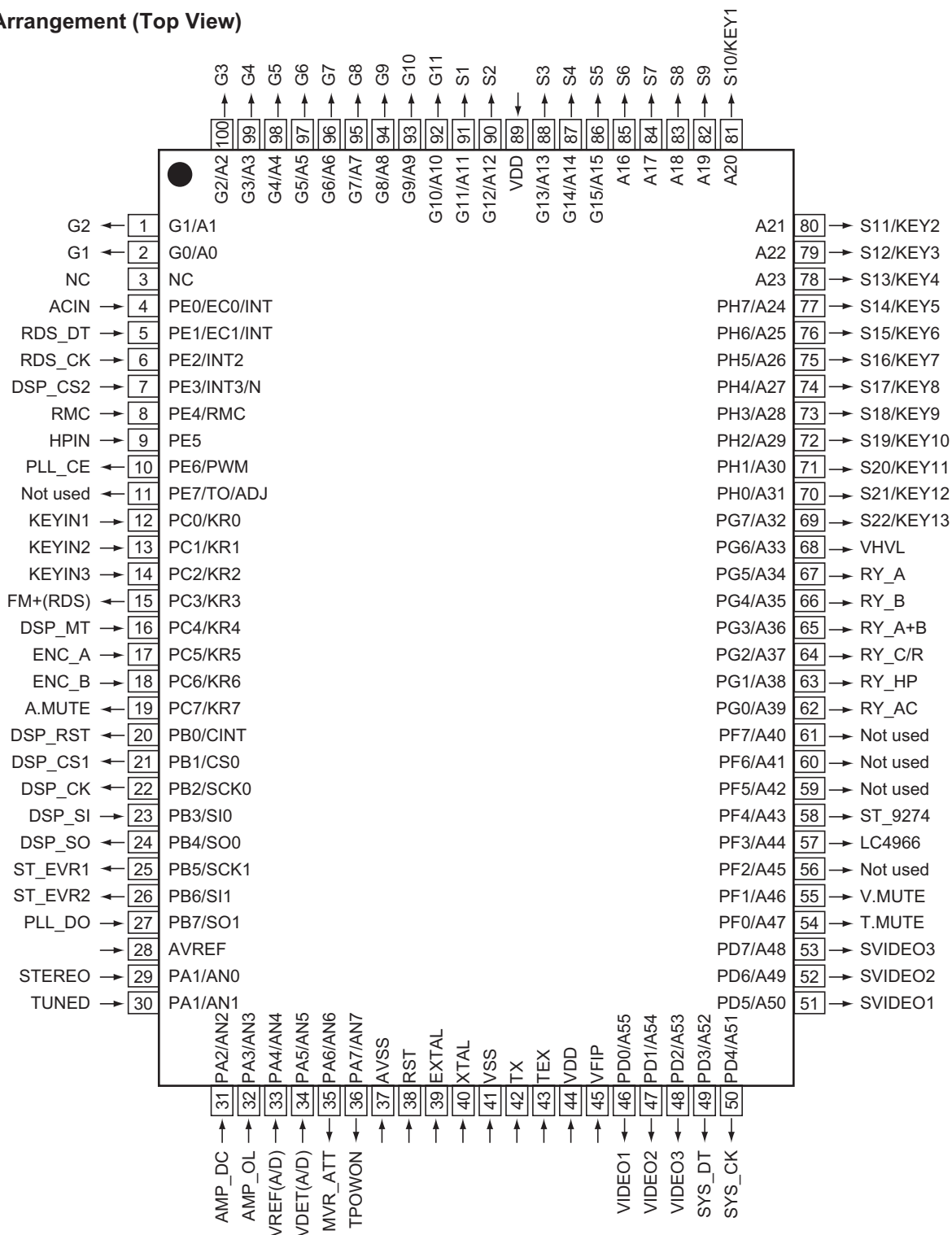
7.1.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ PDG232A (FRONT ASSY : IC201)

• System Control Microcomputer

• Pin Arrangement (Top View)



●Pin Function

No.	Pin Name	I/O	Pin Function	Active
1	G2	O	Grid output 2	H
2	G1	O	Grid output 1	H
3	NC	–	Connect to VDD	
4	ACIN	I	AC pulse input	
5	RDS_DT	I	Serial control data signal for DSP communication	
6	RDS_CK	I	Serial control clock signal for DSP communication (used for external interrupt)	
7	DSP_CS2	I	CS input from DSP microcomputer	
8	RMC	I	Remote control signal input (no-carrier signal)	
9	HPIN	I	Headphone connection detection (H : connect)	
10	PLL_CE	O	Chip select signal for communication with LC72131 (tuner)	H
11	Not used	O	Open	
12	KEYIN1	I	Key scan input 1	
13	KEYIN2	I	Key scan input 2	
14	KEYIN3	I	Key scan input 3	
15	FM+(RDS)	O	Tr switch ON/OFF for power supply of RDS decoder (L : AM power off, H : others)	H
16	DSP_MT	I	Mute requirement from DSP microcomputer (H : Mute requirement)	H
17	ENC_A	I	Rotary encoder signal input A	
18	ENC_B	I	Rotary encoder signal input B	
19	AMUTE	O	Audio mute	L
20	DSP_RST	O	Reset signal of DSP microcomputer	L
21	DSP_CS1	O	CS output to DSP microcomputer	L
22	DSP_CK	O	Clock signal for communication with DSP microcomputer	H
23	DSP_SI	I	Data input signal for communication with DSP microcomputer	
24	DSP_SO	O	Data output signal for communication with DSP microcomputer	H
25	ST_EVR1	O	Strobe 1 for electric volume LC7535M	H
26	ST_EVR2	O	Strobe 2 for electric volume LC7535M	H
27	PLL_DO	I	Data input signal for communication with LC72131 (tuner)	
28	AVref	–	Connect to VDD	
29	STEREO	I	Stereo/Monoral signal judgment signal	
30	TUNED	I	TUNED information	
31	AMP_DC	I	DC abnormality detection of protection circuit (L : Abnormality detection)	
32	AMP_OL	I	Over-load detection of protection circuit (L : Abnormality detection)	
33	VREF	I	Reference value (A/D) for detecting the AMP input signal level for VH/VL switch	
34	VDET	I	AMP input signal level detection (A/D) for VH/VL switch	
35	MVR_ATT	O	ATT control of master volume (L : Less than -20dB)	L
36	TPOWON	O	Tuner module ON/OFF (North America model only)	H
37	AVSS	–	Connect to VSS	
38	RST	–	Reset	
39	EXTAL	–	Connect to the oscillator (8MHz)	
40	XTAL	–		
41	VSS	–	Connect to VSS	
42	TX	–	Open	
43	TEX	–	Connect to VSS	
44	VDD	–	+5V	
45	VFDP	–	-30V	
46	VIDEO1	O	NJM2296D control	H
47	VIDEO2			
48	VIDEO3			
49	SYS_DT	O	Clock signal for communication with LC7535M and TC9274N-001	H
50	SYS_CK			

No.	Pin Name	I/O	Pin Function	Active
51	SVIDEO1	O	TC4051 control (S terminal control)	H
52	SVIDEO2			
53	SVIDEO3			
54	TMUTE	O	Tuner mute	H
55	VMUTE	O	Video mute	L
56	Not used	O	Open	
57	LC4966	O	Input switch the DVD 6ch	H
58	ST_9174	O	Strobe signal for communication with TC9174	H
59	Not used	O	Open	
60	Not used	O	Open	
61	Not used	O	Open	
62	RY_AC	O	AC relay ON/OFF	H
63	RY_HP	O	Headphone relay ON/OFF	H
64	RY_C/R	O	Rear/Center relay ON/OFF	H
65	RY_A+B	O	Speaker A + B relay ON/OFF	H
66	RY_B	O	Speaker B relay ON/OFF	H
67	RY_A	O	Speaker A relay ON/OFF	H
68	VHVL	O	Power switch for AMP system (H : VH)	H
69	S22/KEY13	O	Segment output 22/key scan output 13	H
70	S21/KEY12		Segment output 21/key scan output 12	
71	S20/KEY11		Segment output 20/key scan output 11	
72	S19/KEY10		Segment output 19/key scan output 10	
73	S18/KEY9		Segment output 18/key scan output 9	
74	S17/KEY8		Segment output 17/key scan output 8	
75	S16/KEY7		Segment output 16/key scan output 7	
76	S15/KEY6		Segment output 15/key scan output 6	
77	S14/KEY5		Segment output 14/key scan output 5	
78	S13/KEY4		Segment output 13/key scan output 4	
79	S12/KEY3		Segment output 12/key scan output 3	
80	S11/KEY2		Segment output 11/key scan output 2	
81	S10/KEY1		Segment output 10/key scan output 1	
82	S9	O	Segment output 9	H
83	S8		Segment output 8	
84	S7		Segment output 7	
85	S6		Segment output 6	
86	S5		Segment output 5	
87	S4		Segment output 4	
88	S3		Segment output 3	
89	VDD	-	5V	
90	S2	O	Segment output 2	H
91	S1		Segment output 1	
92	G11		Grid output 11	
93	G10		Grid output 10	
94	G9		Grid output 9	
95	G8		Grid output 8	
96	G7		Grid output 7	
97	G6		Grid output 6	
98	G5		Grid output 5	
99	G4		Grid output 4	
100	G3		Grid output 3	

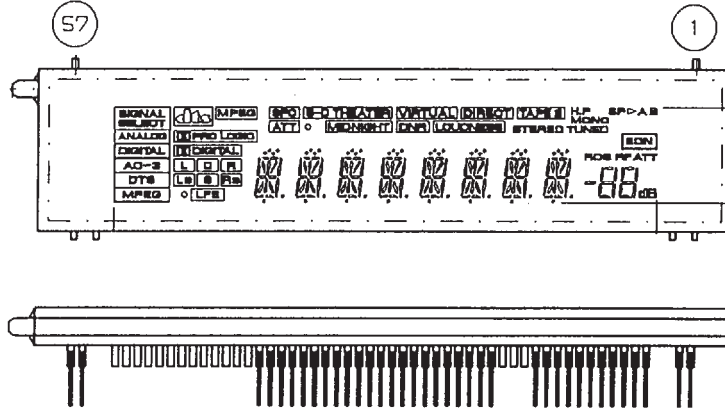
Note : • In the power off condition (with the remote control unit key or the main unit tact key), set to "L" excepting tuner mute (pin 54). However, it nothing is done against to the input port.

- When pin 10 and 11 detect "L" at the reset, be careful because it enter the microcomputer's own test mode.

7.1.2 DISPLAY

■ AAV7062 (FRONT ASSY : V201)

- FL Indicator Tube
- Pin Assignment



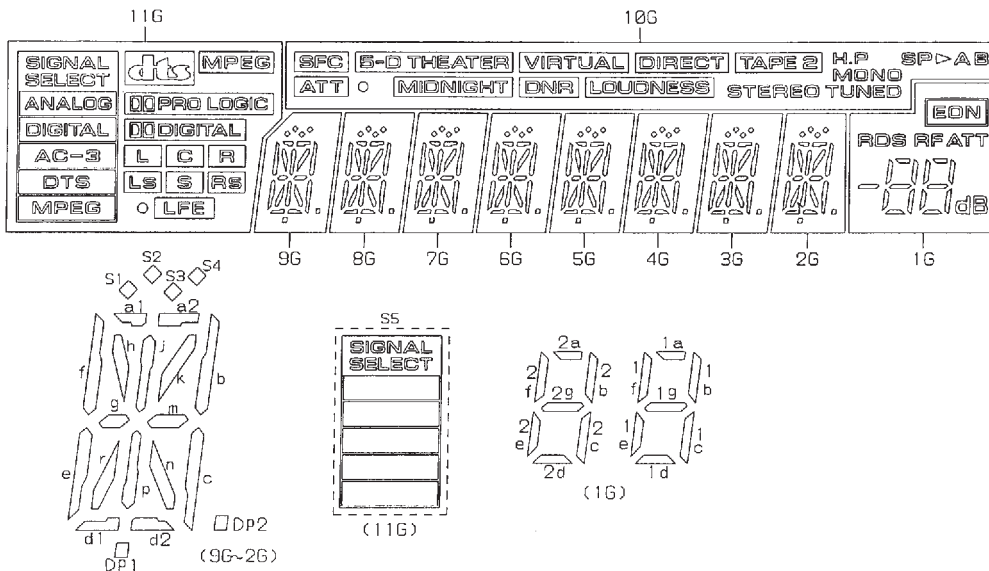
• Pin Connection

PIN NO.	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1						
CONNECTION	N	N	N	N	N	N	N	N	N	N	P	P	P	P	P	P	P	P	P	P	P	P	P	P	N	N	N	N	N	N	N	N	N	N	N	N	F	F				
	X	X	X	X	X	X	X	X	X	X	2	1	0	9	8	7	6	5	4	3	2	1	0	9	8	7	6	5	4	3	2	1	0	9	8	7	6	5	4	3	2	1

PIN NO.	5	5	5	5	5	5	5
CONNECTION	F	F	N	N	N	N	N
	2	2	P	P	X	X	X

- NOTE
- 1) F1, F2 --- Filament
 - 2) NP ----- No Pin
 - 3) NX ----- No extend pin
 - 4) DL ----- Datum Line
 - 5) 1G~11G --- Grid

• Grid Assignment



• Anode Connection

	11G	10G	9G~2G	1G
P1	LFE	B	a1	dB
P2	○	A	a2	2a
P3	RS	SP▶	h	2b
P4	S	H.P	j	2f
P5	LS	TUNED	k	2g
P6	R	MONO	b	2c
P7	C	STEREO	f	2e
P8	L	TAPE 2	m	2d
P9	DIGITAL	DIRECT	g	1a
P10	PRO LOGIC	LOUDNESS	c	1b
P11	MPEG	DNR	e	1f
P12	dtb	VIRTUAL	r	1g
P13	MPEG	MIDNIGHT	p	1c
P14	DTS	S-D THEATER	n	1e
P15	AC-3	○	d1	1d
P16	DIGITAL	ATT	d2	◻
P17	ANALOG	SFC	DP2	RDS
P18	SS	-	DP1	RFATT
P19	-	-	S1	EON
P20	-	-	S4	(EON)
P21	-	-	S2	-
P22	-	-	S3	-

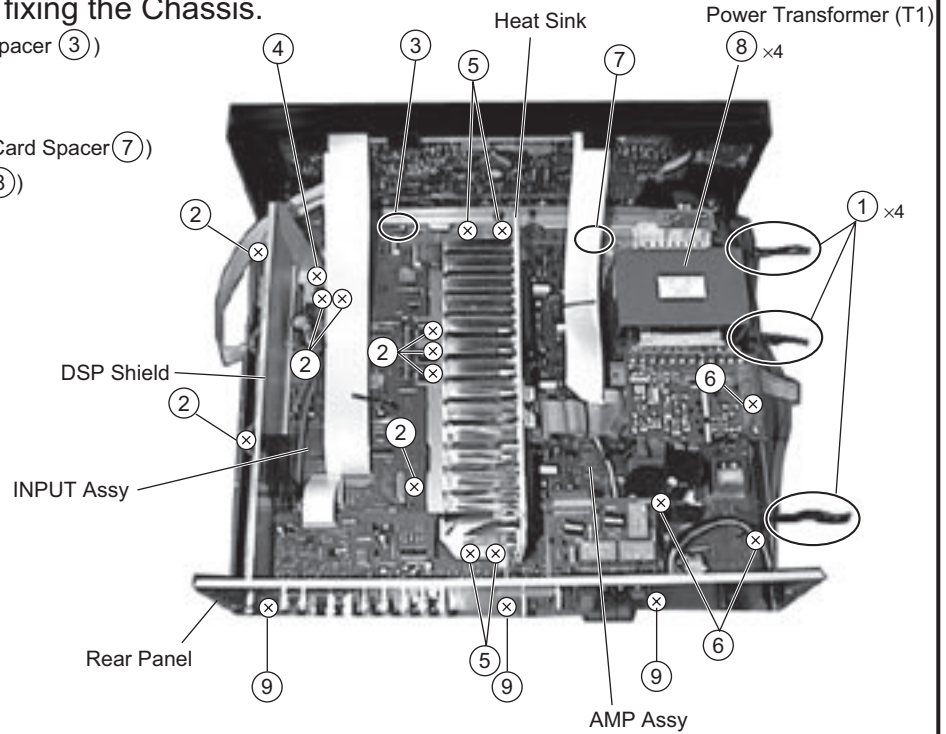
7.2 DISASSEMBLY

1 Remove the Bonnet. (seven screws)

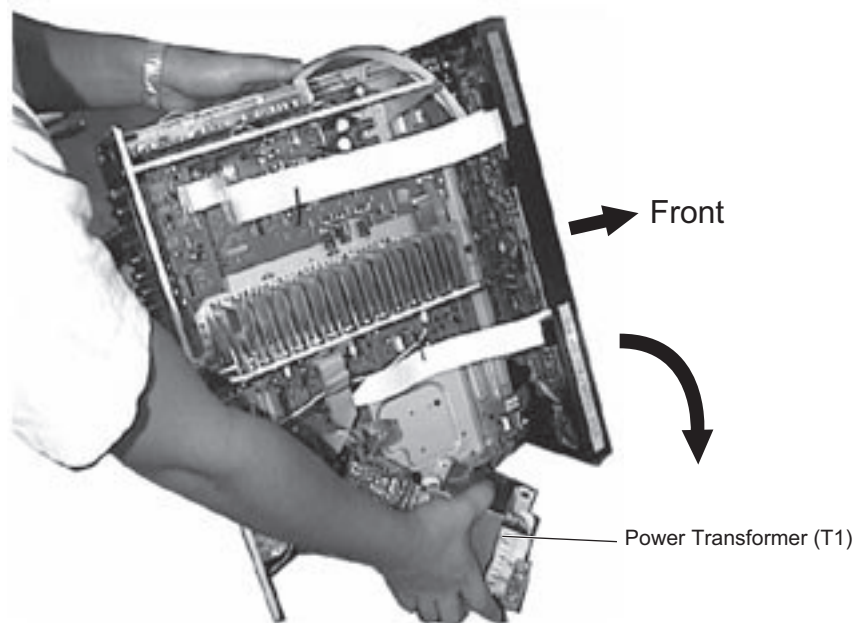
2 Release three binders (1) from the Power Transformer (T1).

3 Remove all screws which fixing the Chassis.

- INPUT Assy (eight screws (2), Card Spacer (3))
- DSP Shield (screw (4))
- Heat Sink (four screws (5))
- AMP Assy (three screws (6), Locking Card Spacer (7))
- Power Transformer (T1) (four screws (8))
- Rear Panel (three screws (9))

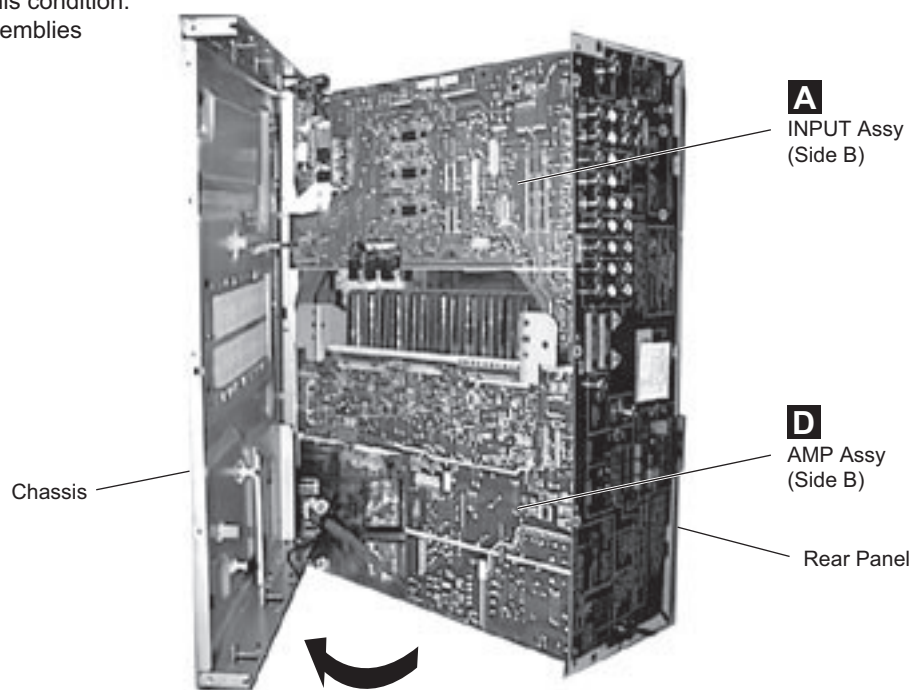


4 Put the Power Transformer on the bottom side, and stand the component sideways.

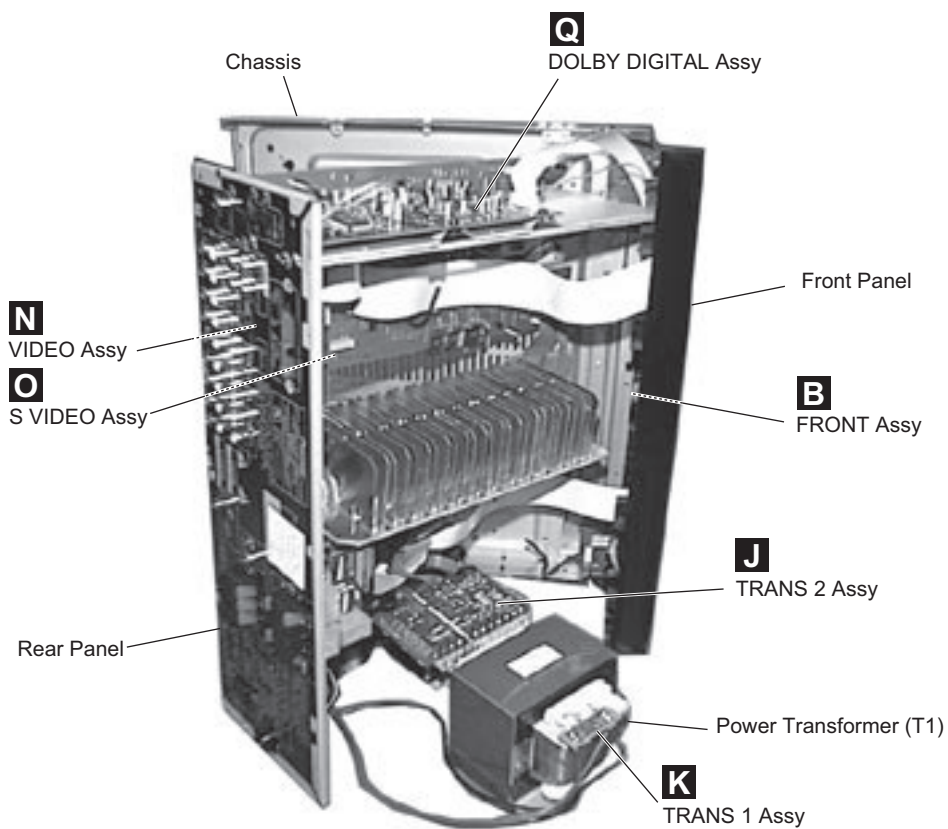


5 Open the Chassis and Rear Panel

It can be diagnosed under this condition.
Show the principal PCB Assemblies
in the illustration.

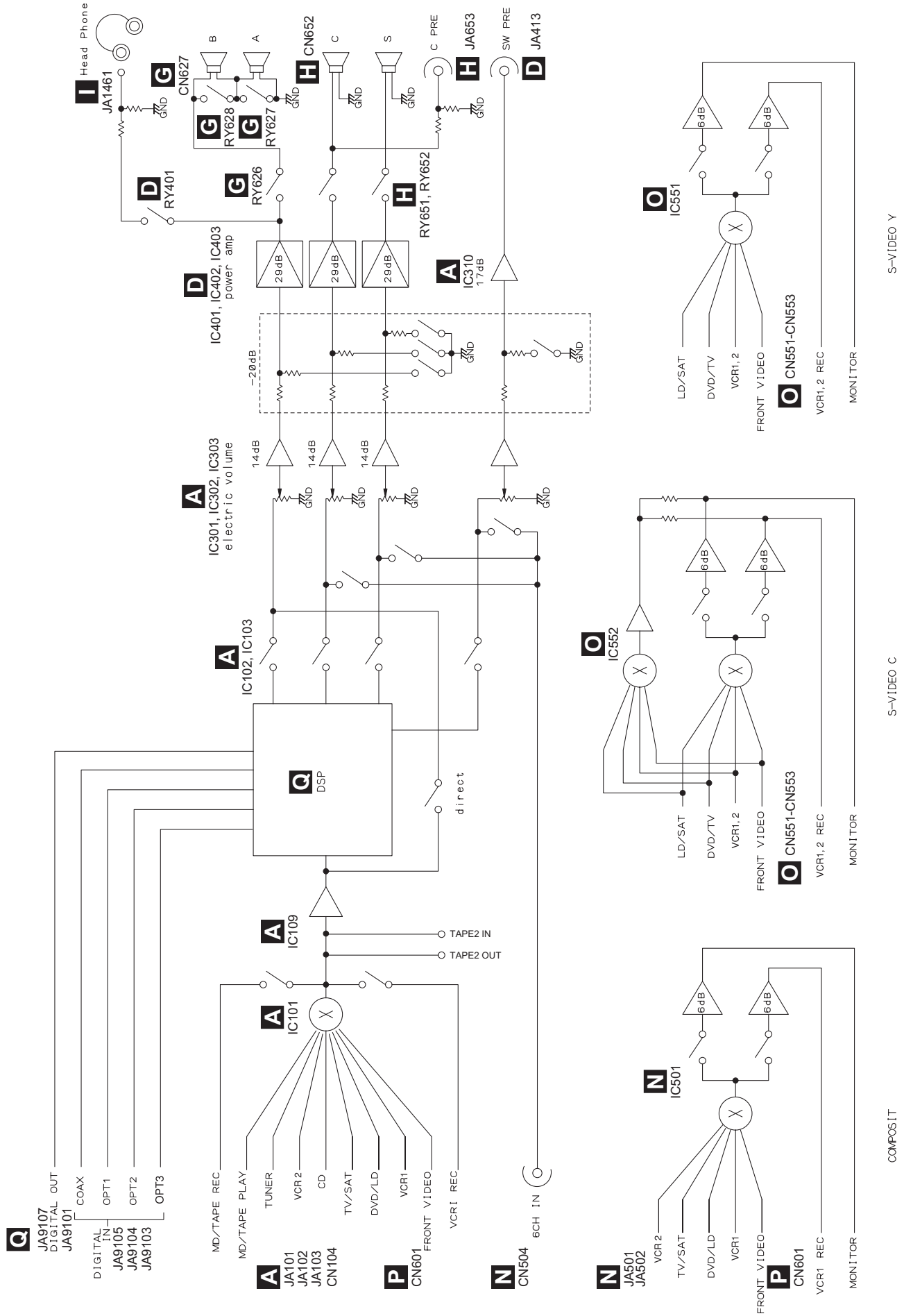


Rear View



Top View

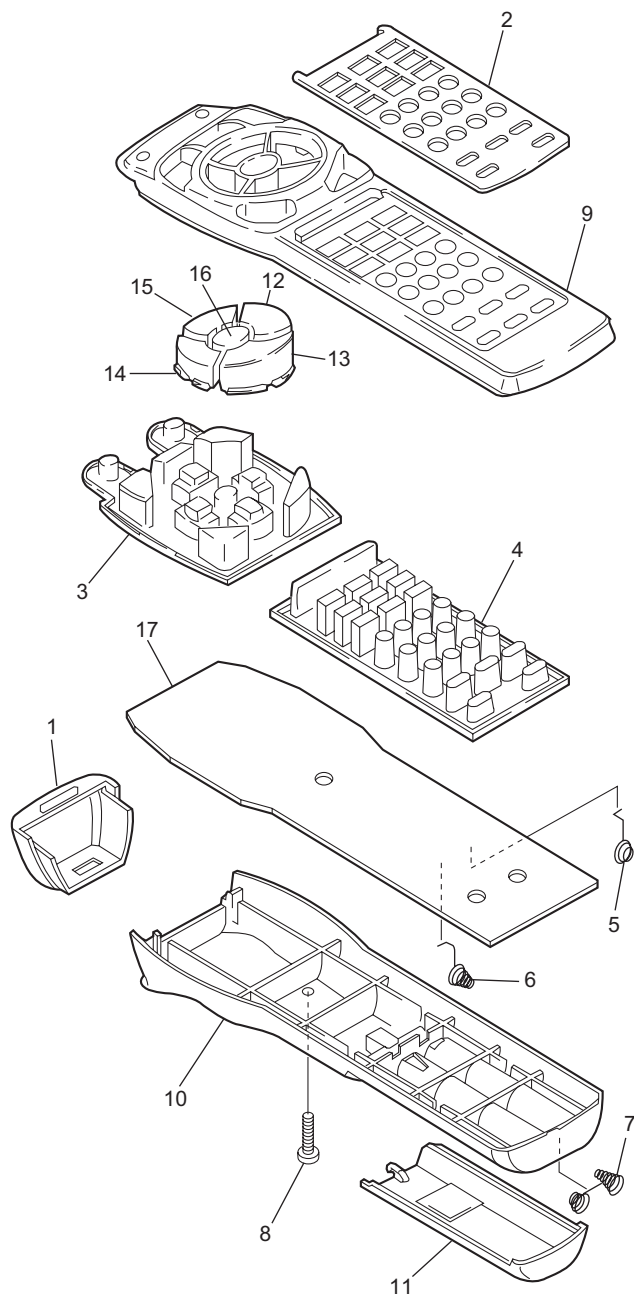
7.3 BLOCK DIAGRAM



7.4 REMOTE CONTROL UNIT [CU-VSX138 (AXD7178)]

7.4.1 Exploded Views and Parts List

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 ● The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 ● Screws adjacent to \blacktriangledown mark on the product are used for disassembly.

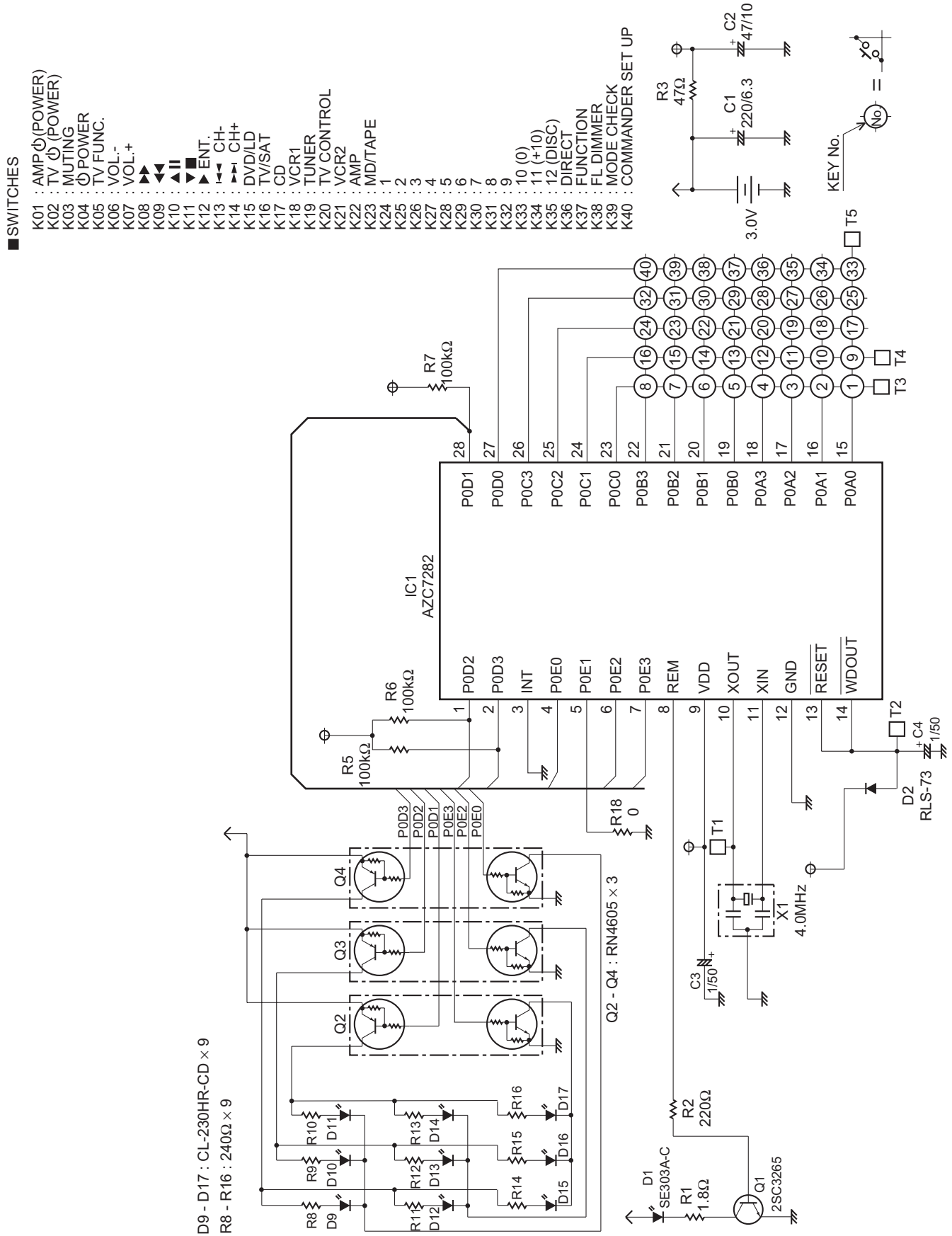


● Parts List

Mark	No.	Description	Part No.
	1	Filter	AZA7152
	2	Name Plate	AZA7304
	3	Rubber Sheet (A)	AZA7308
	4	Rubber Sheet (B)	AZA7307
	5	Spring (+)	AZB7049
	6	Spring (-)	AZB7050
	7	Spring	AZB7051
	8	Screw	AZB7052
	9	Remo-con Case (A)	AZN7738
	10	Remo-con Case (B)	AZN7326
	11	Battery Cover	AZN7327
	12	Main Key (FF)	AZN7666
	13	Main Key (STOP)	AZN7741
	14	Main Key (REV)	AZN7665
	15	Main Key (PAUSE)	AZN7742
	16	Main Key (PLAY)	AZN7664
NSP	17	PCB	AZW7248

7.4.2 Schematic Diagram

Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



7.4.4 PCB Parts List

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

●The \triangle mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

●When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω \rightarrow 56×10^1 \rightarrow 561 RD1/4PU $\boxed{5} \boxed{6} \boxed{1} J$

47k Ω \rightarrow 47×10^3 \rightarrow 473 RD1/4PU $\boxed{4} \boxed{7} \boxed{3} J$

0.5 Ω \rightarrow R50 RN2H $\boxed{R} \boxed{5} \boxed{0} K$

1 Ω \rightarrow 1R0 RS1P $\boxed{1} \boxed{R} \boxed{0} K$

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562×10^1 \rightarrow 5621 RN1/4PC $\boxed{5} \boxed{6} \boxed{2} \boxed{1} F$

Mark No.	Description	Part No.
----------	-------------	----------

SEMICONDUCTORS

IC1		AZC7282
Q1		2SC3265
Q2-Q4		RN4605
D1		SE303A-C
D2		RLS-73
D9-D17		CL-230HR-CD

CAPACITORS

C2		CEAT470M10
C1		CEAT221M6R3
C3,C4		CEATR10M50

RESISTORS

R1		RS1/8S1R8J
Other Resistors		RS1/10S $\square \square \square J$

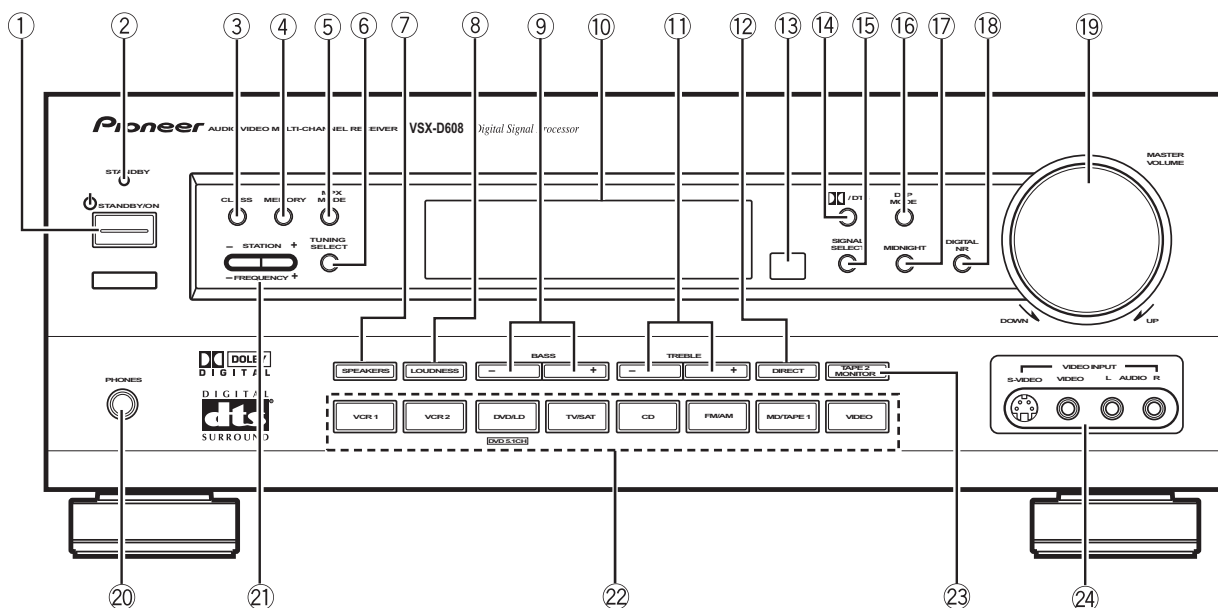
OTHERS

X1	CERAMIC RESONATOR (4MHz)	KBR-4.0M
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8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

■ Front Section



① **STANDBY/ON button**

Press to switch the receiver on or put in standby.

② **STANDBY indicator**

Lights when the receiver is in standby mode. (Please note that this receiver consumes a small amount of power (2.5 W) during the standby mode.)

③ **CLASS button**

Press repeatedly to switch the preset station classes.

④ **MEMORY button**

Press to memorize a preset station.

⑤ **MPX MODE button**

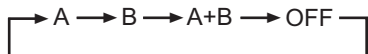
Press to switch between auto stereo and monaural ("MONO") reception of FM broadcasts. When the broadcast signal is weak, selecting "MONO" will improve the sound quality.

⑥ **TUNING SELECT button**

Press to switch between STATION and FREQUENCY.

⑦ **SPEAKERS button**

Press repeatedly to switch between A and B speaker systems as follows.



⑧ **LOUDNESS button**

Switches the loudness on or off. Use to raise the level of the low and high frequencies so they can be more easily heard when listening at low volumes.

⑨ **BASS (+/-) button**

Press to adjust low frequencies in the range of ± 6 .

⑩ **Display**

⑪ **TREBLE (+/-) button**

Used to adjust high frequencies in the range of ± 6 .

⑫ **DIRECT button**

Switches direct playback on or off. Use to bypass the receiver's tone control circuitry or level control for higher fidelity to the program source. When DIRECT is ON, Dolby, DSP, LOUDNESS, DNR and MIDNIGHT mode are automatically turned OFF.

⑬ **Remote sensor**

Point the remote control toward the remote sensor to operate the receiver.

⑭ **DOLBY/DTS button**

Press repeatedly to select the standard Dolby/DTS mode and the ADVANCED THEATER modes.

⑮ **SIGNAL SELECT button**

Use to select input signals for the digital components. First press DVD/LD, TV/SAT, MD/TAPE 1, CD or VCR 1 (⑳ Function buttons) to select the component, then press SIGNAL SELECT repeatedly to select one of the following:

ANALOG : Selects the analog (R and L) audio signals.

DIGITAL : Selects the digital audio signals. This receiver automatically detects and displays the format of the signal being input. AC-3 lights when Dolby Digital signals are input, and DTS lights when DTS signals are input. (AC-3 and DTS decoding is switched automatically.)

- SIGNAL SELECT is fixed in the "ANALOG" position for components not assigned to one of the four digital input jacks.
- Because the audio from a karaoke microphone and LD recorded with analog audio only is not output from the digital output, set SIGNAL SELECT to "ANALOG".
- This receiver can only play back Dolby Digital and PCM (32kHz, 44kHz, and 48kHz), and DTS digital signal formats. With digital signal formats other than these, set SIGNAL SELECT to "ANALOG".

⑯ **DSP MODE button**

Press repeatedly to select a DSP sound mode (HALL 1, HALL 2, JAZZ, DANCE, THEATER 1, or THEATER 2). Use these modes to produce surround sound from standard (two channel) stereo sources.

⑰ **MIDNIGHT button**

Press to hear effective surround sound at low volume levels. The effect is automatically adjusted according to the volume level.

⑱ **DIGITAL NR button**

Switches DIGITAL NR on or off. Use to reduce noise in digital audio sources.

⑲ **MASTER VOLUME**

After turning on the desired component, rotate to adjust the volume.

⑳ **PHONES jack**

Connect headphones for private listening (the speakers turn off automatically).

㉑ **STATION/FREQUENCY (+/-) button**

STATION: Press to select the preset channel.

FREQUENCY: Press to select the frequency.

㉒ **Function buttons**

Selects the function. Each press switches the DVD/LD input between DVD/LD and DVD 5.1 channel.

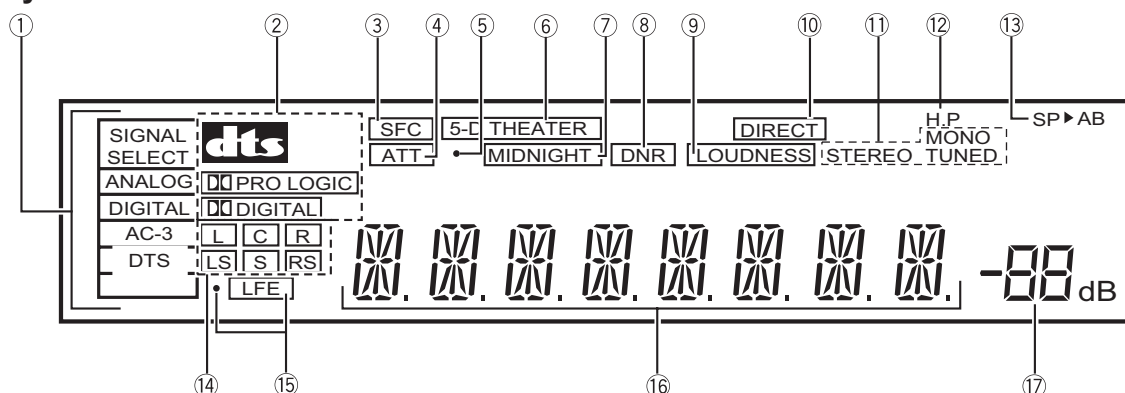
㉓ **TAPE 2 MONITOR button**

Switches the TAPE 2 monitor on or off.

㉔ **VIDEO INPUT jacks**

Connect a video camera, video game system, etc. to the VIDEO INPUT jacks.

■ Display



① SIGNAL SELECT indicators

Light to indicate the type of input signal selected for the current component (refer to "Front Panel" ⑮ SIGNAL SELECT).

ANALOG : Lights when the analog audio signals are selected.

DIGITAL : Lights when the digital audio signals are selected.

AC-3 : Lights when a source with Dolby Digital signals is played.

DTS : Lights when a source with DTS audio signals is played.

② Digital indicators

dts : Lights when DTS signals are input. (DTS mode is ON)

PRO LOGIC : When the Dolby mode on the receiver is on, this indicator lights during 2 channel playback of Dolby Digital sources.

DIGITAL : When the Dolby mode on the receiver is on, this indicator lights to indicate playback of a Dolby Digital signal. However, PRO LOGIC lights during 2 channel playback of Dolby Digital.

③ SFC (DSP) mode indicator

Lights when the DSP mode or ADVANCED THEATER mode (except for 5-D THEATER) is selected.

④ ATT indicator

Lights when ATT (refer to "Remote Control" ⑦ Number buttons) is used to reduce the level of the input signal. (Available in ANALOG mode only)

⑤ Overload indicator

When "ANALOG" is selected in SIGNAL SELECT, this indicator lights when an excessively strong signal is being processed. When this indicator lights, press ATT on the remote control to attenuate (lower) the signal and prevent distortion.

⑥ 5-D THEATER indicator

Lights when 5-D THEATER is selected.

⑦ MIDNIGHT indicator

Lights when the MIDNIGHT mode is on.

⑧ DNR indicator

Lights when the DIGITAL NR is on.

⑨ LOUDNESS indicator

Lights when loudness is on (refer to "Front Panel" ⑧ LOUDNESS).

⑩ DIRECT indicator

Lights when direct playback is on (refer to "Front Panel" ⑫ DIRECT).

⑪ Tuner indicators

STEREO : Lights when an FM stereo broadcast is received in the auto stereo mode.

TUNED : Lights when a broadcast is received.

MONO : Lights when the tuner is set to receive FM broadcasts in monaural.

⑫ H.P indicator

Lights when headphones are plugged in.

⑬ Speaker indicators

Light to indicate the current speaker system (refer to "Front Panel" ⑦ SPEAKERS (A/B)).

SP > A : Lights when speaker system A is selected.

SP > B : Lights when speaker system B is selected.

⑭ Program format indicators

The following indicators light to show the channels being played back.

L : Left front^{*1*2}, **C** : Center^{*1}, **R** : Right front^{*1*2},
LS : Left surround^{*1}, **S** : Surround (mono)^{*2},
RS : Right surround^{*1}

*1: Indicates 5.1ch Dolby Digital playback.

*2: Indicates Dolby surround playback.

⑮ LFE indicator

LFE (Low Frequency Effects) indicator lights to indicate that the program source contains an LFE channel. The indicator to the left of LFE lights during actual playback of the LFE signals (LFE signals are not present in all parts of the sound track).

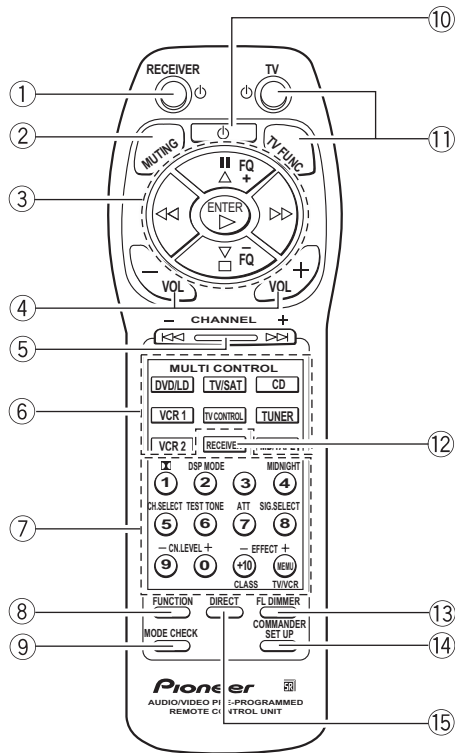
⑯ Character display

⑰ Volume level display

Displays the volume level. Volume level is maintained even when the power is off. ---dB indicates the minimum level, and 0dB indicates the maximum level.

- Depending on the level settings for individual channels, the MAX level can range between -10dB and 0dB.

■ Remote Control Unit



① **RECEIVER button**

Press to switch the receiver on or to put in standby.

② **MUTING button**

Press to mute the volume. "MUTING" appears in the display. Press again to cancel.

③ **△/▽/◀/▶/ENTER buttons**

Specific use of these buttons is described in conjunction with the operations they are used in.

ENTER : Press to switch the band (FM/AM) when using the tuner.

④ **VOL (+/-) buttons**

Press to adjust the volume. When VOL (+/-) buttons are pressed while muting, muting is canceled.

⑤ **CHANNEL (+/-) button**

Use to select preset stations when operating the tuner. When the remote is used to control other components, this button may be used to change channels, tracks, or chapters.

⑥ **MULTI CONTROL buttons**

Use these buttons to select the source and corresponding remote operation mode. For example, pressing TUNER selects the built in tuner and sets the remote to operate the tuner functions.

⑦ **Number buttons**

These buttons can perform a variety of different functions depending on the remote operation mode.

• **[RECEIVER operations (press RECEIVER first)]**

□ : Press repeatedly to select the standard Dolby/DTS mode and the ADVANCED THEATER modes.

DSP MODE : Press repeatedly to select a DSP sound mode.

MIDNIGHT : Press to hear surround sound effectively at low volumes.

CH.SELECT : Use to select a speaker when adjusting speaker levels.

TEST TONE : Press to switch the test tone on or off when listening to a surround mode.

ATT : Press to attenuate (lower) the level of the input signals and prevent distortion (refer to "Display" ⑤ Overload indicator).

SIG.SELECT : When the same component uses both analog and digital connections, use to select input signals as digital or analog.

CH.LEVEL (-/+) : Use to adjust individual speaker levels.

EFFECT (+/-) : Use to adjust the DSP mode effect level.

• **[TUNER operations (press TUNER first)]**

Number buttons (0~9) : During preset tuning, use to input the number of the preset station. Use to input the station frequency during direct tuning.

CLASS (+10) : Press repeatedly to switch the preset station classes during preset tuning.

MENU : Press to activate direct tuning.

⑧ **FUNCTION button**

Press repeatedly to select a source.

⑨ **MODE CHECK button**

Press to confirm the current remote operation mode and to switch operation modes without changing the source .

⑩ **Power button**

Press to turn on or put in standby all connected components other than this unit.

⑪ **TV/TV FUNC button**

Press TV to turn the TV's power on or put in standby. Press TV FUNC to select the TV for remote control operation.

⑫ **RECEIVER button**

Press to select the receiver for remote control operation.

⑬ **FL DIMMER button**

Press to adjust the brightness of the fluorescent display. Four levels of brightness ranging from very dim to very bright can be selected.

⑭ **COMMANDER SET UP button**

Use to customize the remote control functions.

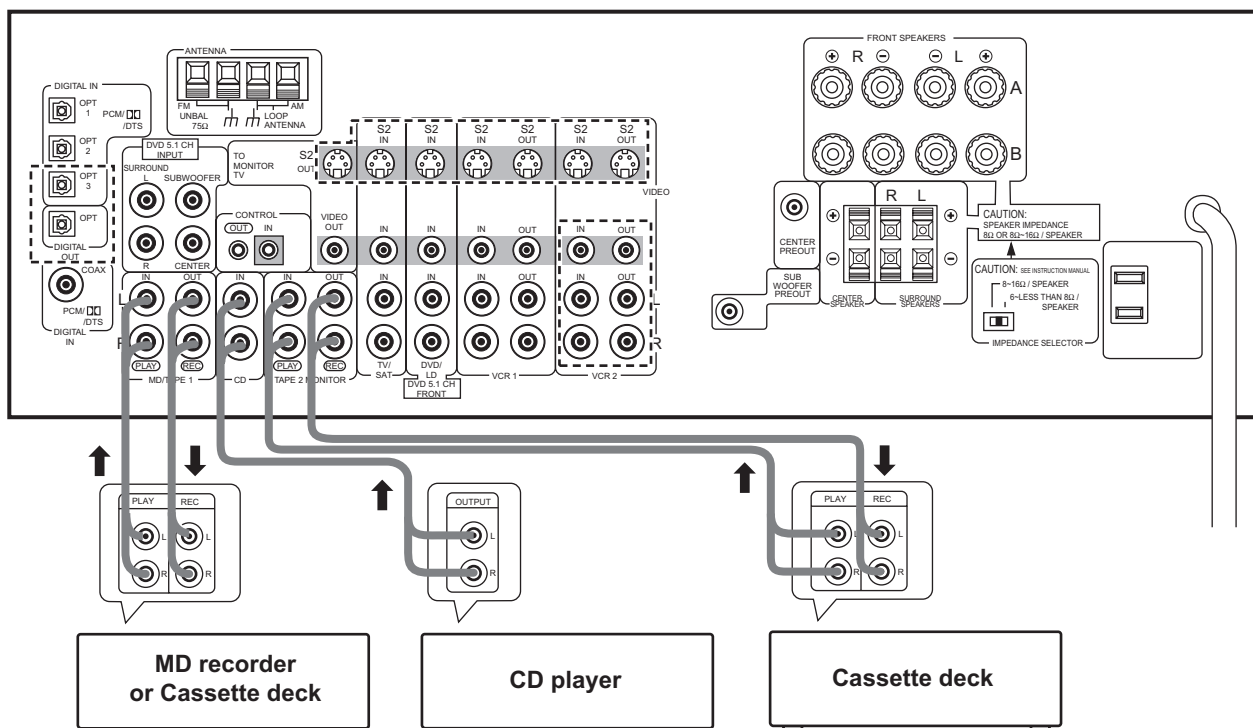
⑮ **DIRECT button**

Use to playback original source audio. When DIRECT is ON, Dolby, DSP, LOUDNESS, DNR and MIDNIGHT mode are automatically turned OFF.

■ Audio Components Connections

Be sure to switch power to standby and remove the power cord from the wall outlet when you make or change connections.

Connect your audio components as shown below.



*The arrows indicate the direction of the audio signal.

■ Audio cords
Use audio cords (not supplied) to connect the audio components.

Connect red plugs to R (right) and white plugs to L (left). Be sure to insert completely.

Cassette Deck Installment

Depending on where the cassette deck is placed, noise may occur during playback of your cassette deck which is caused by leakage flux from the transformer in the receiver. If you experience noise, move the cassette deck farther away from the receiver.

8.2 SPECIFICATIONS

Amplifier Section

Continuous average power output of 100 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.09 % total harmonic distortion (front).**

* Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.

** Measured by Audio Spectrum Analyzer.

Continuous Power Output

Front 100 W + 100 W (1 kHz, 0.8 %, 8 Ω)
 Center 100 W (1 kHz, 0.8 %, 8 Ω)
 Rear 100 W + 100 W (1 kHz, 0.8 %, 8 Ω)

Input (Sensitivity/Impedance)

VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD, MD/TAPE, TAPE 2
 200 mV/47 kΩ

Frequency Response

VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD, MD/TAPE, TAPE 2
 5 Hz to 100,000 Hz ⁺⁰/₋₃ dB

Output (Level/Impedance)

VCR 1 REC, VCR 2 REC MD/TAPE REC, TAPE 2 REC 200 mV/2.2 kΩ

Tone Control

BASS ± 6 dB (100 Hz)
 TREBLE ± 6 dB (10 kHz)
 LOUDNESS +7 dB/+6 dB (100 Hz/10 kHz)

Signal-to-Noise Ratio (IHF, short circuited, A network)

VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD, MD/TAPE, TAPE 2 97 dB

Signal-to-Noise Ratio [EIA, at 1 W (1 kHz)]

VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD, MD/TAPE, TAPE 2 80 dB

VIDEO Section

Input (Sensitivity/Impedance)

VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO 1 Vp-p/75 Ω

Output (Level/Impedance)

VCR 1, VCR 2, MONITOR 1 Vp-p/75 Ω

Frequency Response

VCR 1, VCR 2, MONITOR 5 Hz to 7 MHz ⁺⁰/₋₃ dB

Signal-to-Noise Ratio

..... 55 dB

Cross Talk

..... 55 dB

FM Tuner Section

Frequency Range

..... 87.5 MHz to 108 MHz

Usable Sensitivity

..... Mono: 13.2 dBf, IHF (1.3 μV/75 Ω)

50 dB Quieting Sensitivity Mono: 20.2 dBf
 Stereo: 38.6 dBf
 Signal-to-Noise Ratio Mono: 73 dB (at 85 dBf)
 Stereo: 70 dB (at 85 dBf)
 Distortion Stereo: 0.5 % (1 kHz)
 Alternate Channel Selectivity 60 dB (400 kHz)
 Stereo Separation 40 dB (1 kHz)
 Frequency Response 30 Hz to 15 kHz (± 1) dB
 Antenna Input 75 Ω unbalanced

AM Tuner Section

Frequency Range 531 kHz to 1,620 kHz (9 kHz step)
 530 kHz to 1,700 kHz (10 kHz step)
 Sensitivity (IHF, Loop antenna) 350 μV/m
 Selectivity 25 dB
 Signal-to-Noise Ratio 50 dB
 Antenna Loop antenna

Miscellaneous

Power Requirement AC 120 V, 60 Hz
 Power Consumption 280 W, 400 VA
 Power Consumption in Standby mode 2.5 W
 AC Outlet
 SWITCHED 100 W (0.8 A) MAX
 Dimensions 420 (W) × 158 (H) × 401 (D) mm
 16-9/16 (W) × 6-1/4 (H) × 15-6/8 (D) in
 Weight (without package) 9.8 kg (21 lb 10 oz)

Furnished Parts

FM Antenna 1
 AM Loop Antenna 1
 Dry Cell Batteries (SIZE "AA" (IEC LR6)) 2
 Remote Control Unit 1
 Operating Instructions 1
 Sub instruction manual [System Set up] 1





NOTE:

Specifications and the design are subject to possible modifications without notice, due to improvements.

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Accessories

			
FM wire antenna (ADH7004)	AM loop antenna (ATB7009)	Remote control unit (CU-VSX138 : AXD7178)	"AA" IEC LR6 batteries × 2